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The Effects of Social Skills Intervention on the Emotional Intelligence of Children with Limited Social Skills

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DEDICATION

To my late-professor, guru and saint, Dr. Arnold DeRosa, whose wisdom, guidance and unconditional support has made me both the therapist and person I never thought I could be; to my mentor Dr. Tom Massarelli whose encouragement and confidence in me never faltered; and to my best friend and husband, Jon who knows me better than I know myself.

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INTRODUCTION

Overview

Psychologists and social science researchers (Bandura, 1977; Gardner, 1983; Maslow, 1950; Mayer & Salovey, 1993; Piaget, 1952; Wechsler, 1940) have been attempting to explore the key components believed to be involved in *success* in life for some time. In 1940, with the advent of the IQ exam, Wechsler (Wechsler, 1958) proclaimed that he could in some way predict an individual's innate intelligence from his IQ testing, hence determining his/her potential for success from an early age. He claimed that IQ is a fixed construct with little variability over the course of one's life. He professed that an individual's IQ, if measured properly, would not significantly change from his/her initial score over time. He saw IQ as an individual's potential intelligence and an antecedent of success. But answering the question "Why are some people more able to succeed in life than others," clearly is not answered solely by an IQ exam. Certainly, many cognitively intelligent people falter in life, while many less intelligent individuals thrive and succeed. Most people today will acknowledge the "relative inability of grades, IQ, or SAT scores, despite their popular mystique, to predict unerringly who will succeed in life" (Goleman, 1995).

Psychologists have been trying to define the true essence of intelligence for nearly a century. In 1958 David Wechsler defined intelligence as "the aggregate or global capacity of the individual to act purposely, to think rationally, and to deal effectively with his (or her) environment" (Wechsler, 1958). Kaplan & Sadock, suggest that cognitive intelligence, which has traditionally been associated with IQ, attempts to indicate one's

capacity to understand, learn, recall, think rationally, solve problems and apply what one has learned. Wechsler suggested that this definition also includes the ability to adapt to new situations and to cope with life situations successfully (Wechsler, 1958). Even Wechsler's himself discussed the role of "the non-intellective factors in general intelligence" (Wechsler, 1943). It is clear that although he concentrated mostly on the research of one's cognitive abilities, he never denied the existence or importance of the non-cognitive components of general intelligence. It was not until Howard Gardner delineated his ideas about the many components that comprise intelligence that the research community embraced his ideas about "multiple intelligences" as an expansion of Wechsler's concept of "general intelligence," and that aspect of multiple intelligence which he refers to as "personal intelligence" as an expansion of Wechsler's "non-intellective factors" (Gardner, 1983). Interestingly, cognitive psychologists like Piaget, who was grounded in the biological facets of development, postulated early that "intellectual activity can not be separated from the total functioning of the organism." He was interested in how an organism adapts to its environment, a behavioral process Piaget described as intelligence (Piaget, 1952). Similarly, Sternberg (1997) expressed the importance of understanding the fluidity of intelligence by asserting how in recent years researchers have "reinvented the concept to make sense of differences we see among people in everyday life." His triarchic theory of human intelligence encapsulates three major aspects of intelligence: analytical, creative and practical. Sternberg often refers to this alternative theory of intelligence as a theory of successful intelligence because of his assertion that its emphasis is "not just on predicting success in schoolwork, but also, predicting success in life" (Sternberg, 1986).

A further break in the past conceptualization of intelligence as a predictive force in success came in 1990 when researchers John Mayer and Peter Salovey, who were trying to develop a way of scientifically measuring the difference between people's ability in the areas of emotions, found that some people were better than others at things like identifying their own feelings, identifying the feelings of others, and solving problems involved in emotional issues (Mayer & Salovey, 1993). They ascertained that these qualities were, in fact, excellent predictors of success, in general, over the course of people's lives. They postulated that this was the essence of emotional intelligence in its truest sense, in that those individuals who are able to develop the skills to understand themselves and others and in turn, respond accordingly, would prove to be the most successful operating in the social world.

The confusion herein lies that there are multiple perceptions of the idea of emotional intelligence due to its misuse in the popular literature and poorly defined parameters in the research community. *The Handbook of Emotional Intelligence* (BarOn & Parker, 2000) attempted to address this dilemma by creating a stockpile of the research to date on emotional intelligence as an explicit construct of interest. It serves to address the many confounding theories and definitions by bringing together researchers that had previously taken a competitive and often contentious approach to the theory of emotional intelligence and attempting to delineate a framework from which the construct can prove functional in the research community. Reviews of both the popular and scientific literature are focused on the goal of bringing "some semblance of order to the various usages of emotional intelligence and some consideration how those meanings may be confusing, but contribute to constructive cultural and scientific discussion if attended to"

(Bar-On & Parker, 2000). Like cognitive intelligence, emotional intelligence has proven to be difficult to define. The term emotional intelligence does not yet appear in dictionaries; as such its definition is still an unsettled issue, as are its inherent restrictions. The many contributing authors of the *Handbook of Emotional Intelligence* encourage others to define this concept in as thorough, clear, and operational a manner as possible; realizing that such an approach will help make this concept more tangible and thus, easier to understand, measure and apply (BarOn & Parker, 2000). It is apparent that the goal of defining and operationalizing this construct has been a necessary step in using it to promote future research in the area of emotional intelligence.

Broadly speaking, emotional intelligence addresses the emotional, personal and social, and survival dimensions of intelligence, which are often more utilized, yet overlooked in one's daily functioning than the more cognitive aspects of intelligence (BarOn & Parker, 2000). Emotional intelligence is concerned with understanding oneself and others, relating to people, and adapting to and coping with the immediate surroundings which increases one's ability to be more successful in dealing with environmental demands (BarOn & Parker, 2000). Emotional intelligence as it is conceived in the popular and scientific community appears to help predict success because it reflects on how a person applies knowledge to an immediate situation (BarOn, 1997). In a colloquial way, to measure emotional intelligence is to measure one's ability to cope with daily situations and function in the world.

Although Mayer and Salovey (1993) were the first to research the concept of emotional intelligence, the term was popularized by Daniel Goleman's journalistic account of Salovey and Mayer's theory in his best selling novel *Emotional Intelligence*,

1995. As a result of this best selling publication the concept of emotional intelligence has emerged as a hot topic in popular contemporary psychology. Goleman's novel Emotional Intelligence (1995) outlines emotional intelligence as a set of mental abilities that are purported to be distinct from general intelligence (IQ) and related to psychological adaptation. It is this adaptive quality that points to the ways basic social and emotional skills can augment one's ability to function more efficiently. Although Goleman's account of this now popular construct succeeded in bringing the concept of emotional intelligence to the general public, it also served to confuse a great deal of the scientific research surrounding emotional intelligence as a theory. As a result, the public definition of emotional intelligence is very different from the academic version.

Besides equating emotional intelligence with emotional literacy, emotional health, emotional skill, and emotional competency, Goleman (1995) uses many different definitions of emotional intelligence. At one point he says it includes "abilities such as being able to motivate oneself and persist in the face of frustrations; to control impulse and delay gratification; to regulate one's moods and keep distress from swamping the ability to think; to empathize, and to hope." At other places Goleman equates emotional intelligence with "moral character," somehow connecting EQ with being a good citizen and "decent human being." While Mayer and Salovey (1997) focused more on the contingent interplay between emotions and intelligence, Goleman (1995) restructured the idea to fit a model that would seemingly be well received by the public. Goleman even goes so far to represent high emotional intelligence with "maturity and character" (Goleman, 1995). Although these notions of emotional intelligence are purely speculative, it is easy to see how the construct of emotional intelligence can be

misrepresented in the popularized literature and hence forth the culture and research community at large. It is clear that Goleman's synopsis of the ideology behind emotional intelligence offered a much expanded and distorted version of Mayer and Salovey's initial assertions based on scientific literature and research. The problem with his assertions is that on a larger scale, he claims that high emotional intelligence enables one to succeed in life. Even though this line of reasoning seems rational, a decade ago it was clear that "scientists have not yet proven that emotional intelligence predicts anything at all, or even that it is a discrete quantity, distinguishable from general intelligence; the construct is too new" (Mayer & Salovey, 1993).

Regardless of the scientific confusion he has generated, Goleman is credited with presenting his adaptation of a few existing models further emphasizing how emotional intelligence changes throughout life. By bringing this idea to the forefront of public awareness, Goleman paved the way for various interventions to be deemed necessary. Parents and educators began to focus on children exhibiting deficits in this area with a new awareness and understanding of the early signs and difficulties this group exhibit at a young age. With the possibility of forming early intervention groups, social skills training became a more viable platform for intervention, especially for those younger children exhibiting social and emotional deficits at an early age.

Furthermore, Raven BarOn (1997) piggy-backed on this concept in an effort to develop a self-report measure of emotional intelligence that could be used throughout the research community in order to assess an individual's emotional intelligence. BarOn defines emotional intelligence as "an array of non-cognitive abilities, capabilities and skills that influence one's ability to succeed in coping with environmental demands and

pressures" (BarOn, 1997). BarOn attempts to present a framework of emotional intelligence that delineates a systematic review of factors thought to determine success in general. He views emotional intelligence "as an array of non-cognitive abilities, capabilities and skills that influence one's ability to succeed in life and directly influences one's general psychological well-being (i.e., one's present mental condition or overall degree of emotional health)" (Bar-On & Parker, 2000). As such, one's emotional intelligence is deemed in this context as an important factor in determining one's ability to succeed in life and directly influences one's psychological well being. It is important to note that unlike IQ, EQ, (emotional quotient) the calculated level of emotional intelligence as assessed by the *BarOn Emotional Quotient Inventory*, develops over time, and is not a fixed construct, irrespective of age. This is a key difference between the idea of traditional intelligence and the construct currently understood in these terms as emotional intelligence because emotional intelligence, despite its multiple interpretations, is based more on learned habits than is the conception of traditional intelligence.

Whereas IQ has always been understood as a set and stagnant number presumably from a very early age, EQ is in its essence a learned trait that one develops as he/she matures. It may appear self-evident that emotional intelligence and emotional skills develop over time, and change throughout life, however, the fact that these varying skills can be improved through training and remedial programs as well as specific therapeutic techniques is a point of interest that was never plausible in addressing the concept of IQ. BarOn's model of emotional intelligence relates specifically to "*potential for performance*, rather than performance itself; it is *process-oriented* rather than *outcome-oriented*" (BarOn & Parker, 2000). Consequently, the viability of interventions,

curriculum based school programming, as well as clinical and therapeutic techniques testing emotional intelligence as a variable of interest is more useful. Now that researchers can actually target emotional intelligence (EQ) as a measurable construct, especially in children, efforts can be made to both screen and determine how the current social skills paradigms are fostering the specific goals of decreasing social deficits and increasing the scope of each child's emotional intelligence repertoire. It is evident that the social and individual importance of social problems generated by the lack of emotional intelligence in childhood clearly indicates the need to solve this task.

Significance of Study

Identifying and using effective intervention methods to refine or improve on the social skill development of children appears to be an increasingly important undertaking today. Although researchers find it difficult to test the true efficacy of these groups in terms of general pragmatic life circumstance (DuPaul & Eckert, 1994; Sasso, Melloy & Kavale, 1990), other researchers attempt to account for interpersonal relationship deficits in terms of the lack of specific skills (Marlowe, 1986; Rotherman, 1982). Low self-esteem (Kennedy, 1988), lack of empathy or the inability to generate solutions to social problems (Elias, Gara, Ubriaco, Clabby & Schuyler, 1986) have also been of focus. Historically, social skills groups were generally intended for children who have evidenced difficulty with peer interactions, self-control, social communication skills and social problem solving (Elias et al, 1986). Although these attributes may be more associated with behavioral disorders or even antisocial behavior in children (Kadzim, 1987), recently these groups have been put into practice with isolated or peer-rejected children. Many other studies conducted were aimed at children with specific

developmental disabilities (Davies & Rogers, 1985; Fleming & Fleming, 1982; Gresham, 1981; Schumaker, Pederson, Hazel & Meyen, 1983), or high risk students having been identified by their teachers (Kazdin, 1987). In light of the current definitions and conceptualizations of emotional intelligence and social skills training programs, it seems fair to say that in attempting to teach children the basic abilities that comprise social and emotional competence these programs are, in fact, attempting to bolster the child's current level of emotional intelligence. Whether this is framed in terms of a social decision making model (Elias & Clabby, 1989) or as an experiential group paradigm, it is clear that children who walk away from these ultimately instructional therapies are hoping to increase their aptitude in getting along with others and negotiating their surroundings in a way in which reinforces the positive interchange with their peers, and hence, by definition, increase one's emotional intelligence. In an effort to ultimately improve peer interactions, interrupt negative patterns and promote greater social competence, it is clear that social skills training has been geared toward the promotion of what we now acknowledge as emotional intelligence for some time (Beelman, Pfingsten & Losel, 1994, Ogilvy, 1984). The jump made from understanding that taken together these variables encompass the very attributes that comprise emotional intelligence and its developmental rationale is yet to be investigated.

Statement of Problem

The rapid structural changes in the foundations of how children today are being raised within our society are providing fewer opportunities for children to learn how to interact with others. Whether it is decreased parental interaction, the advent of computers

and video games taking the place of real peer interaction and imaginative play, or the breakdown of the family system, it is apparent that many children today have far less actual emotional cues to learn from than in past decades (Elias, Tobias & Friedlander 2001). As a result, many children go through a better part of their childhood without learning the essential lessons and the resulting rules that are implicit to real peer interactions, that is relationships that are naturally generated; fostered by the children themselves. Many children experience a sense of isolation and social avoidance stemming from their inappropriate social schema. These difficulties are reportedly related to an increase in the number of emotional problems that have been documented to exist among school age children and young adults today (Elias, Tobias & Friedlander 2001). Because poor peer relationships have been associated with difficulties in development (BarOn & Parker, 2000; Parker & Asher, 1987), children with social adjustment problems have been the focus of numerous investigations (Bierman, Miller, & Staub, 1987; Conger, & Keane, 1981; Gottman, Gonso, & Schuler, 1976; Rotherman, 1982). Today, parents and educators seem more aware than ever of the cycle of peer rejection that is often the product of awkward interpersonal exchanges resulting in rejection and then future isolation on the part of these socially challenged children. It is clear that these social deficits may act as a catalyst to the incidence of social anxiety, depression and other emotional problems (Goleman, 1995; Parker & Asher, 1987).

In response to this disturbing trend parents and educators alike have looked to psychologists and researchers to develop models in which children lacking in these social skills can groom their interactions by ways of participating in therapeutic venues specifically geared toward addressing these social and emotional concerns. In an effort to

facilitate the exposure to these implicit cues in the moment, many psychologists have recommended group therapy modalities that allow children to explicitly learn the intrinsic variables that foster positive peer interactions. In these experiential venues, children who are identified as isolated or rejected in their peer group endeavor to learn skills related to enhancing their overall social and emotional competence in hopes of carrying these abilities with them into the classroom, playground and beyond. By promoting the innate values of genuine relationships these training groups address factors related to the interpersonal, intrapersonal, adaptability, stress management and general mood components of a child's emotional repertoire that speak to his/her success in coping with daily environmental demands (BarOn & Parker, 2000). These variables point specifically to what the literature today terms "emotional intelligence," and it is this relatively new construct that may clarify exactly what these social skills training groups have been attempting to foster for some time. These approaches, although currently being implemented in school systems and other group therapy modalities, do not have significant evaluation literature or research to be deemed effective for fostering emotional intelligence.

Another major issue pending is indicating what "being effective" means in terms of social skills training outcomes. To date, investigators geared toward studying social competence have lacked the tools necessary to both screen and evaluate these interventions using a self-report measure that accurately illustrates a child's social and emotional functioning. Whether programs endeavor to improve social adjustment, instruct social problem solving tactics, or initiate self-control training, it is clear that there is a broad-based need for a measure to evaluate these programs in terms of the actual

emotional intelligence of the children involved. Past studies have generated conclusions from results on behavioral observation from peer, teacher and parent reports (Elliot & Grisham, 1993; Ladd, 1981; Weinrott, Carson & Wilchesky, 1979) as well as self-report measures that solely appraise self-concept, self-esteem and cognitive abilities (Conger & Keane, 1981; Rotherman, 1982). Although these measures function to assess important qualities in these children's functioning, none as of yet have deliberately gauged a child's emotional intelligence either as a screening device or to evaluate the effectiveness of a social skills training intervention. With the advent of the *BarOn Emotional Quotient Inventory- Youth Version* (BarOn, 1997), researchers and psychologists are finally able to make a more concise appraisal of how these children's emotional intelligence in terms of their interpersonal, intrapersonal, adaptability, and stress management aptitudes are ultimately affected by the intervention. The research community now has the ability to apply this unique tool in the context of these groups in order to better understand how social skills training effects children's competencies in understanding themselves and others, relating to people, adapting to changing environmental demands and managing their emotions. Never before has a reliable and empirically validated measure that possesses multidimensional scales that assess core features of emotional intelligence been feasible for use with young children. With this tool, researchers and practitioners alike can evaluate their own programming, determine the future direction these interventions need to address and even screen for potential socially deficient youth at risk.

Theoretical Framework

The theoretical framework that one must understand when examining the relationship between how social skills training effectively alters a child's emotional

intelligence is grounded in the theoretical perspective of social cognitive theory (Bandura, 1986). During the last century social and emotional competencies have come to be increasingly recognized as an important human capability to be studied and appreciated for its role in human development and adjustment. Certainly, being able to function appropriately and thus, successfully within one's environment is a major goal to be accomplished during childhood and beyond. The evolution of children's social and emotional life is paramount if the synthesis of the factors that comprise emotional intelligence is to result in a child's successful negotiation with the social and emotional world. "Mental health professionals who work with the young have long been acutely aware of how social and emotional experience profoundly affects and even determines children's ability to learn and develop" (Cohen, 1999). Using social skills training groups to encourage and model positive social and emotional cues enables these identified children to experience and exercise the basic qualities that define emotionally intelligent behavior.

Bandura's social cognitive perspective delineates the reasoning behind how these training groups are able to shape a child's emotional intelligence within a group therapeutic domain. "Primary among these are the capabilities to symbolize, plan alternative strategies (forethought), learn through vicarious experience, self-regulate, and self-reflect" (Bandura, 1986). Children in social skills training groups are primarily afforded the opportunity to learn to accomplish these tasks in a facilitated and controlled environment so that they can apply their learning outside the therapeutic vein to their daily lives. Learning to draw on their symbolic capabilities, children can extract meaning from this structured environment, construct guides for action, solve problems cognitively,

support forethought courses of action, gain new knowledge by reflective thought and effectively communicate with others (Bandura, 1986). While there are several versions of social learning theory to which researchers currently subscribe, they all share three basic tenets (Akers, 1996; Crosbie-Brunett and Lewis, 1993; Thomas, 1990; Woodward, 1982). The first tenet advocates the notion that response consequences, such as rewards or punishments, influence the likelihood that a person will perform a particular behavior again in a given situation. This concept gives credence to the token economy system of reward used within the social skills training model. Children, in particular respond to reinforcement through token systems where they are rewarded when they act in socially constructive ways with a token that can be exchanged for rewards at a later time (Elias & Clabby, 1989). This behavior modification strategy has been utilized in countless group modalities that advocate classical conditioning methodologies.

Another tenet that social learning theory espouses is the basic understanding that humans can learn from observing others, in addition to learning by participating in an act personally. Using the experiential assets a group modality implicitly sets up, children are able to learn in the context of real life dynamics and 'in the moment' exchange. "Comparative appraisals of efficacy require not only evaluation of one's own performances but also knowledge of how others do, cognizance of nonability determinants of their performances, and some understanding that it is others, like oneself, who provide the most informative social criterion for comparison" (Bandura, 1986). The associations made in this way naturally translate into pro-social behaviors enacted outside the group experience. Certainly, generalizing the positive interaction styles learned within the group into the daily life of the child is the ultimate goal.

The third and last tenet that is at the core of social learning theory is that individuals are most likely to model behavior observed by others they identify with. Identification with others in this case is a function of the degree to which a child is perceived to be similar to ones self. "Agemates provide the most informative points of reference for comparative efficacy appraisal and verification" (Bandura, 1986). This explains why social skills training groups of this kind are structured in a way that the children are grouped by age and possess similar deficiencies in terms of their social competence.

Despite the above referenced literature discussing the theoretical construct of emotional intelligence, to date, there is a paucity of empirical research in this area. One possible reason for this gap has been the unavailability of a measure to assess emotional intelligence. With the advent of the BarOn EQ, however, there are new possibilities for exploring emotional intelligence.

Social skills training programs have long been used to improve children's social interactions. These groups often provide a forum for practicing and modeling positive social behaviors. Previous literature has found that social skills training may function to raise an array of specific skills such as academic achievement (Seymour, 1999), self-esteem (Eisenberg & Mussen, 1989; Smilon, 1984), self-awareness (Simon, 1981; Goleman, 1995) and perceived self-control (Larkin, 1998). Never before, however, has there been a paradigm that endeavored to evaluate these programs with respect to a compilation of these variables, as they are intrinsically represented in the construct of emotional intelligence. The present research study aims to determine if emotional intelligence will be affected by social skills training. Thus, the specific research question

to be answered is whether a child's emotional intelligence, as measured by the BarOn:EQ-i:YV, will be elevated by participating in social skills training.

The present study endeavors to examine one independent variable (i.e., social skills training) and one dependant variable (i.e., emotional intelligence) with five levels. The independent variable, social skills training is conceptually defined as a group therapy session consisting of exercises that are aimed to focus on the acquisition of specific interpersonal skills that enables one to experience personal or mutually beneficial relationships with others (Elias & Clabby, 1989). Social skills training is operationally defined as participation in an eight week social skills training program for children identified with social skills deficits. The dependant variable, as conceptualized by BarOn and Parker is the total score on the BarOn Emotionally Quotient Inventory: Youth Version, BarOn EQ-i:YV (BarOn & Parker, 2000). This is a measure that is used to assess emotional intelligence in children that is thought to present a picture of an individual's emotional well being and ability to cope and respond successfully with their environment (BarOn & Parker, 2000). This dependant variable is operationally defined as a child's actual total score achieved on the BarOn EQ-i:YV, which is known as a participant's EQ, or Emotional Quotient. Furthermore, this measure generates five subscale scores (i.e., Interpersonal, Intrapersonal, Adaptability, Stress Management, and General Mood) which will comprise the five levels of the dependant variable.

An understanding of precisely what variables supported by these interventions are therefore reflected in children's emotional intelligence, as measured by the Bar-On EQi:YV post treatment, will assist researchers and facilitators focused on improving these treatment regimes in understanding what specific elements of children's emotional

intelligence are reinforced during these treatment regimes. Researchers have long understood (Gottman, et al., 1976) that less than adaptive social competence and emotional proficiency significantly affects a child's capacity to successfully interact with others and learn from their social experiences in a way that reflects their ability to thrive. In addition, emotional intelligence, as it becomes a more salient variable of focus, must be investigated in order to pare out the ways in which its intrinsic elements can be supported using specific social skills interventions. At present, there is little empirical evidence that effectively proves emotional intelligence to be a key component to children's social success. Furthermore, there have been no studies to this researcher's knowledge that have directly examined the relationship between emotional intelligence and social skills training with children identified as having limited social skills.

It is expected that this study will be of particular relevance to researchers, teachers, parents, psychologists and facilitators of social skills training groups in helping them understand the relationship between emotional intelligence and children's success in their social world. Increasing the breadth of knowledge concerning how children's emotional intelligence may be affected by social skills training groups appears to be crucial to the understanding of how these groups may shape this developing construct. The information generated from this study will be used to assess the effectiveness of social skills training programs in fostering emotional intelligence. Likewise, this study hopes to establish new ideas about what specific deficits are being supported in social skills training as well as what abilities are being addressed that allow a child to incorporate a more developed and aware social system. This study hopes to provide insight that will serve to inform clinicians and teachers how they can best address the

deficits of this specific population, or even in identifying children who are at risk. Understanding the importance of promoting children's emotional intelligence, and how to best assess and then elevate these important skills throughout their development is now being perceived as a crucial responsibility for educators and clinicians alike.

In an effort to address the apparent gap in emotional intelligence research, the present study hopes to demonstrate that social skills interventions with youth who are identified as having social deficits will serve to increase those children's emotional intelligence. While social skills interventions have long been used as a means for improving social deficits in youth, to date there has been no established measure designed to assess emotional intelligence in children. Thus, while children involved in social skills interventions may already have been geared towards bolstering the very variables that encompass emotional intelligence, only now are researchers able to specifically measure this construct as it presently is being defined.

Hypotheses

1. There will be a statistically significant difference between children who participate in social skills training as compared to the control group, pre to post intervention, on the Total EQ score of the BarOn EQ-i:YV(S) following completion of the training program.
2. It is hypothesized that analysis of variance (ANOVA) will find significant pre to post intervention differences on the five sub-scales of the BarOn EQ-i:YV(S): Intrapersonal, Interpersonal, Adaptability, Stress Management, and General Mood.
3. It is hypothesized, that post-intervention, females will produce significantly higher BarOn EQ:i,YV scores than male participants.

Definition of Terms

According to Raven Bar-On and James Parker there are 5 major conceptual components of Emotional Intelligence. These include intrapersonal, adaptability, general mood, interpersonal, and stress management components. Listed below are brief definitions of the 15 factors that are measured by the BarOn EQ-i Youth version.

Emotional Quotient (EQ): calculated by summing the scores for all the EQ subscale items and conceptualized as a general indication of how emotionally intelligent the respondent is; "it encapsulates how successful the individual is in coping with environmental demands and presents a "snapshot" of his or her emotional well-being." (BarOn, 1997)

Intrapersonal Components:

Emotional Self-Awareness (ES): The ability to recognize and understand one's feelings.

Assertiveness (AS): The ability to express feelings, beliefs, and thoughts and defend one's rights in a nondestructive manner.

Self-Regard (SR): The ability to be aware of, understand, accept, and respect oneself.

Self-Actualization (SA): The ability to realize one's potential capacities.

Independence (IN): The ability to be self-directed and self-controlled in one's thinking and actions and to be free of emotional dependency.

Interpersonal Components:

Empathy (EM): The ability to be aware of, to understand, and to appreciate the feelings of others.

Social Responsibility (RE): The ability to demonstrate oneself as a cooperative, contributing, and constructive member of one's social group.

Interpersonal Relationship (IR): The ability o establish and maintain mutually satisfying relationships that are characterized by emotional closeness, intimacy, and by giving and receiving affection.

Adaptability Components:

Reality Testing (RT): The ability to assess the correspondence between what is emotionally experienced and what objectively exists.

Flexibility (FL): The ability to adjust one's emotions, thoughts and behavior to changing situations and conditions.

Problem Solving (PS): The ability to identify and define problems as well as to generate and implement potentially effective solutions.

Stress Management Components:

Stress Tolerance (ST): The ability to withstand adverse events, stressful situations, and strong emotions without "falling apart" by actively and positively coping with stress.

Impulse Control (IC): The ability to resist or delay an impulse, drive, or temptation to act, and to control one's emotions.

General Mood Components:

Optimism (OP): The ability to look at the brighter side of life and to maintain a positive attitude, even in the face of adversity and negative feelings.

Happiness (HA): The ability to feel satisfied with one's life, to enjoy oneself and others, and to have fun and express positive feelings.

Limitations

The principal limitation of the present study was the limited sample size available for testing. One reason is that there often is a paucity of students enrolled and/or wait-listed in social skills groups. Despite the large number of children who are socially rejected or who face peer isolation in schools, as of present there is no formal system in place for identifying and classifying students in need of social skills training. Only in the last five years have social decision-making curricula gained attention in the school systems. This largely has been in the form of violence and drug prevention programs aimed at reducing antisocial behavior among children today. In situations where students are correctly identified as having social skills deficits, programs often are not available within the schools to meet the special needs of these children. Further, private programs

directed toward the fostering of social skills are not abundant and can sometimes be difficult to locate. In many cases parents may not even be aware that such programs exist. Another barrier preventing children from receiving appropriate training is the difficulties inherent in organizing skills training groups, such as matching age and gender.

Studies with small sample sizes can be limited in terms of their power and generalizability. Specifically, studies with few participants run the risk of increased within-group (i.e., error) variance, thereby making it more difficult to achieve significance during hypothesis testing. While reduced power might be an alternative hypothesis for non-significant findings, the present study has accounted for this by conducting a power analysis that dictates the number of participants necessary to find meaningful results. In addition, fewer participants will limit the degree to which one can generalize results above and beyond the immediate sample being examined. Moreover, future studies should endeavor to recruit from a more varied population (especially in terms of socioeconomic status) of children in order to examine social skills training effects within a more heterogeneous sample.

With the advent of the BarOn EQ: i-YV, there is newfound opportunity to assess the effect of social skills training groups on the emotional intelligence of children. This is due to the fact that emotional intelligence is a relatively new construct and, as such, there are no other validated assessment tools measuring this construct in children. Thus, while the present study is unique, the lack of a rich research literature backing the use of the BarOn EQ: i-YV is not available. Even though the psychometric properties of this

measure have been established, there have been no published articles substantiating its use to date.

When conducting scientific research a prominent shortcoming is that once participants are aware that they are involved in a study, they may think and behave differently than people who are not being evaluated. Thus, due to the reactivity to the experimental situation, generalization to a population of children who are not being tested may not be possible. Specifically, upon signing assent to participate in this study, children may react differently than they would have had they not been informed of the study. In addition, a related limitation may be that the group therapist is aware of the study, thereby causing her to facilitate the group differently. Such experimenter bias may be related to a vested interest and increased motivation to find a significant study effect. In addition, as in most quasi-experimental research, it may be difficult to generalize this study to real life since the children's behavior modification does not occur in a naturalistic setting.

The presence of pre-existing disorders might moderate the effect of the independent variable, thereby potentially creating an alternative explanation for study effects on BarOn EQ: i-YV test scores. Specifically, this study might be hindered by the fact that children will not be screened for pre-existing conditions (e.g., psychological or environmental factors) that might impact on training effects. While the present study excludes children with prominent developmental disorders, it is nearly impossible to control for the myriad of other factors that may affect treatment outcome. There are numerous reasons that serve to explain the presence of social skills deficits in children, thus making it a heterogeneous population. Thus, while the results of the present study

may be slightly ambiguous, they are consistent with the population of children who seek social skills training in general.

Another limitation of this study is lack of control over socioeconomic status of the children. One possibility may be that children from upscale families may be more receptive and have higher general abilities for modeling than other populations. On the other hand, children from lower income families may have less opportunity to model and receive reinforcement for pro-social communication and behavior. Future studies might aim to expand and/or control the target population in order to include various socioeconomic realms.

This study might also be hindered by the fact that parents are paying for their children to be involved in the social skills program. Therefore, the ability to generalize the results of this study to a population of children enrolled in a non-fee or school-based programs will not be possible. Specifically, it is possible that families of enrolled children may be more intrinsically motivated to be active in the training program, therefore increasing program effect. Furthermore, as in most quasi-experimental research, the generalizability of findings produced by a design that precludes the use of a naturalistic setting is limited.

Another inherent limitation in this study is the lack of random assignment of subjects to specific treatment groups. This shortcoming increases the likelihood that confounding variables may account for the treatment effect. No separation across SES, diagnosis, or any other classifications were implemented. Certainly, there is a need for similar groups in terms of age, gender and functioning when every child brings with him/her their idiosyncratic tendencies and deficits to social interactions in and out of

group training. Facilitating the inherent dynamics between children with these types of issues will surely result in a baseline differential between groups; however, these differences must be tolerated in the context of the environment as well as within these groups. In life, children must learn to tolerate other's social and emotional deficits as they would within the confines of the treatment group. This very fact allows us the leeway to group children with varying degrees of social and emotional deficits into groups based on age and gender, irrespective of their classifications and competencies. Despite possible different aptitudes within treatment groups, evaluating them in this way allows one to generalize to the real world where often children have a psychiatric diagnosis that accompanies their behavioral deficits. Certainly, this is a study that focuses on establishing the external validity (generalizability to the larger scope of the population) of social skills training as it would target the largest number of children as they present with varying capabilities. If one takes out the possibility of testing children with other diagnoses, then one can not attempt to generalize specifically to children who are the majority in these groups.

Finally, there may be limitations related to the use of the BarOn EQ-i: YV. The BarOn EQ-i: YV is a self-report measure, thereby making it subject to biases inherent to self-report measures. For example, young children may be more likely to underreport negative qualities (Beitchman, 1996). Another important validity concern is the possibility of random responding on this measure. However, these limitations are largely addressed by the scales Inconsistency Index as well as the Positive Impression Scale, which are designed to detect respondents who might not be responding accurately. Thus,

while the psychometric properties of the BarOn EQ-i: YV have been found to be sound, there are general limitations inherent to the use of any self-report measure.

Chapter II

REVIEW OF RELATED LITERATURE

Introduction

A child's social life evolves in relatively predictable ways. The social network grows from an intimate relationship with parents or guardians to include other family members, non-related adults, and peers. The influence of the child's family, which is the major force during the early childhood years, continues in importance as parents provide role models in terms of attitudes and behaviors. This style helps give rise to how children eventually operate amongst their peers. Early on, children's social interactions with peers are further shaped by group play in childcare and then further forged in formal school. Theorists agree that peers play an increasingly important role in children's social and cognitive development (Fopma-Loy, 2000). Children who are not well accepted or are rejected by their peers in school are at high risk. These children are more likely to drop out of school, engage in delinquent behavior, and have emotional and psychological problems later in adolescence and adulthood than are their peers who are more accepted (Bierman et al, 1987).

It is clear that not all children learn appropriate social skills on their own and for some, there is a need to make programs available in order to enhance this deficiency. In this chapter, a discussion of relevant topics related to the development of social competence in children is presented.

History of Social Skills Training Groups

As early as the 1970's, Combs & Slaby asserted that social competence affects every aspect of a person's life. These skills are usually initially learned through interactions

with family members and siblings, however, it appears that today, children are afforded less opportunities that provide real social interaction in the immediate family system. Today, the role of learned positive interactions through family dynamics is tainted by the overwhelming influence of mass media, which tends to minimize the importance of family modeling in a child's social repertoire. All too often the void of appropriate learned behavior is filled by the aggressive and violent behavior depicted in the media.

One way in which social deficiencies experienced in children can be improved is through the use of social skills training programs. These groups have historically targeted improvement in variables such as noncompliant behavior, self esteem (Larkin, 1998), self awareness (Simon, 1981), peer acceptance (Bierman et al, 1987, Kilgore, 1994, Ladd, 1981), impulsivity, aggression (Harbeitner, 1997, Kadzin, 1987, Rotherman, 1982), academic achievement (Elias, 2003, Seymour, 1999), social avoidance and isolation (Weinrott et al, 1979, Gottman et al, 1976), as well as anxiety and loneliness (Conger & Keane, 1981, Crick & Ladd, 1993). The paring out of the specifically targeted variables mentioned above delineates the widespread use of social skills training groups and the inherent variability to which they have been applied. Beginning in the early 1940's Chittenden (1942) began measuring and teaching assertive behavior in young children. Since this time there has been a substantial increase in the interest and development of social skills evaluation, training and applied techniques. Despite the plethora of independent variables studied with respect to these social skills training groups, there have been no studies to this author's knowledge that have addressed these group's effects on a child's emotional intelligence. The natural progression of social skills training groups to now incorporate an assessment of the effect on a child's

emotional intelligence is available through the use of the BarOn Emotional Quotient Inventory: Youth Version which was empirically validated through Multi-Health Systems in 2000 (BarOn & Parker, 2000).

Social Skills Models

There have been many theoretical and logistical formats in numerous environments in which social skills training have historically taken place. Settings range from school based models (Crick & Ladd, 1993, Elias, 2003, Harbeitner, 1997, Kilgore, 1994, Smilon, 1984) to preventive mental health interventions in foster care and special education venues (Fleming & Fleming 1982, Gresham, 1981, Shumaker et al, 1983, Yancey, 1998) to privatized interactive groups with clinical populations (Ogilvy, 1984, Christopher, Nagle & Hansen, 1993).

Although there are certainly more than three approaches to social skill training, interventions usually employ a combination of modeling, coaching, cognitive problem solving, and group psychotherapy (Crosbie- Brunett & Lewis, 1993, Elias et al 1986). Modeling focuses on the observation of live models, coaching focuses on instruction and the practice techniques of the different skills which are missing or not used, and cognitive problem solving techniques incorporate direct instruction for various social settings. Examples of studies that have examined modeling typically employ interventions that demonstrate positive social behaviors such as eye contact or practicing the identification of appropriate social cues (Ogilvy,1984). Coaching interventions, on the other hand, employ direct instruction of positive social behaviors that allow children to foster improved social interactions; direct instruction often includes the teaching of appropriate emotional responses, social perception, and conflict management. Coaching

interventions often also implement games in order to practice skills learned through direct instruction. Studies that incorporate the use of problem solving models (Durlak, 1995, Elias et al, 1986, Shure & Spivack, 1982) use a preventative, problem-solving approach that aims to curtail the onset of future problem behaviors. The key feature of this approach is to prevent dysfunction prior to it occurring by teaching children how to manage and solve every-day social challenges. Cognitive strength building, along with other cognitive tools to improve coping skills, also is incorporated into problem-solving models (Shure & Spivack, 1982). Studies that have focused on psychotherapeutic models work directly to examine maladaptive thoughts, feelings, and behaviors that impact social situations. Both recognizing how poor social interactions can reduce peer relationship problems and how social rejection that occurs early in life can lead to skewed internal working models are important factors in determining how these conditions may negatively effect later relationships (Fopma-Loy, 2000). Thus, there are a number of proposed models by which children can develop enhanced social skills that can lead to more satisfying and fulfilling social interactions and relationships.

Overall, studies (Bierman et al, 1987, Kilgore, 1994) support the use of social skills groups to improve social behaviors and social interactions, as well as, foster satisfying social relationships in children. The following will review this literature briefly.

Bierman and Furman (1984) attempted to identify how social skills training and peer involvement might improve peer acceptance of unaccepted pre-adolescents. It was specifically hypothesized that group interaction would increase skillful social interaction among participants. The research design included fifty-six 5^{th} and 6^{th} grade children who were identified as deficient in conversational skills and as unpopular amongst their peers.

These individuals were randomly assigned to receive either 1) individual, 2) group, 3) a combination of these training experiences, or 4) no treatment. Participants in the active intervention groups received manual-based group programming and coaching over a six-week period. The results of Analysis of Variance (ANOVA) indicated that while there were no significant post-intervention group differences in social interaction, there were significant improvements in conversational skills among participants assigned to the group and combination training groups ($F(1, 108) = 3.75, p < 0.06$). Notably, there also was an interaction of sex and overall social skills acquisition, where females tended to acquire a greater set of skills when compared to their male counterparts ($F(1, 108) = 4.69$, $p < 0.05$). The authors' conclusion that practice of positive social communication, as acquired in a group setting, can ultimately lead to improved social functioning is limited by the time-limited nature of the intervention. Additionally, numerous individuals administered group programming, without initially being equated on ability to deliver the treatment paradigm. Thus, while the results are positive a more effective study may include a longer treatment approach and use the same facilitators for each study group in order to make results more interpretable.

In another study (Bierman, 1986) that aimed to improve peer acceptance among 27 pre-adolescent children who were identified to be unpopular among peers, it was hypothesized that engaging in cooperative activities with two socially accepted classmates and coaching would improve positive peer support and social skills. Specifically, all participants engaged in cooperative interaction with accepted peers, however half of the participants were randomly assigned to also received social skills coaching. The results indicated that after ten sessions, those students who also received

coaching tended to display a greater frequency of positive conversational skills ($F(1, 23) = 17.46$, $p < 0.05$) and enjoyed greater peer acceptance than children who did not receive additional coaching ($F(2, 49) = 2.81$, $p < 0.05$). While these results are positive, the study was limited in that interactions among accepted and non-accepted students could not be standardized, thus it is difficult to isolate the specific impact of coaching given the possibility that unknown components of the student interactions might have impacted the treatment effect. Future studies might attempt to better control social interactions with planned interactions and/or activities. Additionally, the study employed videotaping to monitor social activities, which may have increased the demand characteristics of the experimental situation and impacted children's social behavior. Thus, it is not clear how participants' behavior would have been different in a more naturalistic or less performance-demanding setting.

In another study examining 259 gifted students in Hong Kong, grades 5-10 were administered measures of emotional intelligence, social coping, nonverbal reasoning and divergent thinking. The goal was to determine whether these intellectually gifted children were at risk for social difficulties among their peers. The results indicated that children found to be high in emotional intelligence were significantly different in social coping, nonverbal reasoning and divergent thinking than students that scored low on the emotional intelligence scale. Specifically, results of one-way analyses of variance and post-hoc paired t-tests revealed that divergent thinking, nonverbal reasoning and social coping were higher among participants with higher emotional intelligence [$F(3, 256) = 41.24$, $p < 0.001$). Therefore, elements of emotional intelligence can be observed across diverse cultures and among children of varied level of intellectual ability. Additionally, this study

suggests the importance of early detection, prevention and intervention for students potentially at risk for poor social competence.

In a school-based social skills training study, in which students were provided with a complex skills intervention focusing on assertiveness training (based upon Albert Bandura's Social Cognitive Theory, SCT) it was hypothesized that assertiveness skills could be acquired in a class setting. Specifically, the research design included 22 sixth-grade children who received a three-week intervention of 6, 40-minute bi-weekly sessions in which a lesson consisting of a learning objective, skills assessment (i.e., a quiz), and a practice activity were provided. The intervention was administered within a social studies class. The primary outcome measure consisted of performance on a 26-item skills assessment quiz administered prior to intervention, post-intervention, and at 6-month follow-up. The results indicated no significant differences pre to post-test, however, participants did perform significantly better at the 6-month follow-up ($F(2, 80) = 29.47, p < 0.001$). While this study was positive in not labeling or removing students from ongoing class activities to build social skills, the results of the present study were ambiguous. First, it is not clear to what extent the outcome measures are testing memory as opposed to a genuine improvement in interpersonal functioning. Additionally, it is possible that students were merely responding to questions in a manner believed to be expected by the examiner (i.e., experimenter expectancy). Finally, no behavioral or observational measures were included to determine if skills obtained during the intervention were generalized to non-training situations. A more effective study might include outcome variable with greater relevance to actual social functioning, which would improve generalizabilty.

While there is ample theoretical literature supporting the use of social skills groups, to date there is a paucity of empirical studies available to identify the specific relationship between social skills training and positive social outcomes among pre-adolescents. As an example, Peterson and France (1992) describe the Stop-Think-Do approach to skills training, in which participants are reinforced for patience, self-control, and cooperation in their social interactions. However, while the technique is comprehensive and well-developed no research was found that supports its efficacy. Clearly, there is a need for empirical research studies that examine closely the nature of social skills groups and how they relate to improved social functioning among children. Moreover, a concentration on how skills generalize to actual peer-to-peer interactions would bolster the external validity of such programming. Indeed, the Task Force on Evidence-Based Interventions in School Psychology (2003) was formed to prompt researchers to initiate empirically-based studies to examine the effect of social skills interventions in the schools. This committee supports a "move to an active agenda to advance research and practice in this area" (Elliot, Kratochwill, & Roach, 2003).

Efficacy

The overall efficacy of social skills training has been supported by many studies (Beelman et al, 1994, Christopher et al, 1993, Ogilvy, 1994, Sasso et al, 1990). Ogilvy (1994) reviewed available research studies and found consistently that social skills training can reliably effect significant changes in child social functioning, provided specific guidelines are followed. Ogilvy (1984) suggests that programs must 1) successfully instruct the skills targeted, 2) have provision for skill generalization to non-treatment settings, and 3) make a difference in a specific valued outcome for the child

(e.g., increase in sociometric status). Indeed, it appears as though an interactive, multi-faceted approach can provide the most efficacious intervention. Ogilvy (1984) continues that present studies are limited methodologically in their failure to focus on a wide-range of problem areas and instead concentrate on skills acquisition or observation by untrained observers. It might further be argued that studies completed to date fail to identify the specific factors that mediate the improvement in social skills, enjoyed after participation in a social skills group. The present study endeavors to isolate one potential variable (i.e., emotional intelligence) that may explain a portion of the efficacy of social skills groups.

Despite the numerous models for improving social skills proposed, a number of methodological difficulties call into question the actual effectiveness of social skills training. Specifically, many studies to date have been based on small sample sizes, which limit generalizability and external validity of results. There also is a selection bias toward including children on the basis of their unpopularity, rather than on actual deficit in social skills. In addition, numerous studies that employ specific treatment approaches fail to adhere to the treatment protocol, making it difficult to isolate components of the independent variable that lend to program effectiveness. Furthermore, a review of available studies found that studies tend to include children with a variety of co-morbid disorders, thereby making study results more ambiguous. In addition to these shortcomings, many studies to date have relied on outcome measures with poor or un-established psychometric properties. Moreover, measures tend to focus on external (e.g. teacher and/or parent based) ratings, rather than on internal developmental changes that children may experience. Finally, numerous studies have failed to include appropriate

control groups, making it difficult to rule out threats to internal validity and to isolate the direct impact of proposed independent variables. These methodological difficulties have been summarized by Erwin (1994) in their meta-analysis of social skills groups for children.

Despite evidence suggesting the efficacy of social skills groups, it remains unclear specifically how group intervention improves social skills in children. The social psychology literature describes the various mechanisms that may account for group efficacy. The research specifically explores the effects of modeling, reinforcement, behavioral changes, emotional regulation, and even physiological brain changes as a result of social and emotional learning.

Development of Social Skills

Social learning theorists have long noted the behavioral impact of modeling, especially on young people (Bandura, 1977, Maslow, 1950, Piaget, 1952). Furthermore, the use of an interactive group approach that creates a realistic cognitive and emotional experience in which children can learn and observe socially appropriate interactions is recommended. By supporting socially impaired children along with peers these targeted socially deficient adolescents may practice positive interaction styles along with witnessing other, more socially adroit children at play. It is apparent that "comparative appraisals of efficacy require not only evaluation of one's own performances but also knowledge of how others perform, cognizance of non-ability determinants of their performances, and some understanding that it is others, like oneself, who provide the most informative social criterion for comparison" (Bandura, 1986). Social skills training groups use this knowledge to enable children experiencing difficulties understanding and

adjusting their own social foibles to fit into their peer's and perhaps even society's standards of what is acceptable. BarOn & Parker (2000) coined the term dyssemia for what amounts to a learning disability in the realm of nonverbal messages. In social skills training groups these nonverbal cues are elaborated in ways in which normal social interactions do not allow. Facilitators can stop group discussion if a child misinterprets facial or body language, invades another's personal space, fails to make eye contact or even displays unusual prosody. At this time the facilitator has the opportunity to discuss the problematic behavior and suggest an alternative. These positive social behaviors can then be practiced and applied in group. As a result, socially deficient children are forced to attend to their own poor communication and often the skewed interaction style of their peers in the group.

As per Bandura's social cognitive perspective (1977), people learn not only by their own experience, but also by observing the behavior of others. Social skills training groups expose children to both of these processes. In the context of these groups children can learn novel behaviors or correct inappropriate actions by observing other children much like themselves. Ideally, these observations of appropriate actions are then used as a guide for future action.

Observational learning is governed by the processes of attention, retention, production and motivation (Bandura, 1986). Attention refers to one's ability to selectively observe the actions of a model. In this case, each child in the group acts as a model for other children to observe, both when exhibiting inappropriate behavior to be modified, as well as when they are positively reinforced for socially adept skills. Positive behaviors can then be reproduced after they are retained in memory as elements they want to replicate

outside the group. Production refers to the process of engaging in the observed behavior. These skills are practiced within the context of the group and are often repeated and reinforced by the facilitator. Finally, if engaging in the observed behavior in the group produces valued results and expectation, the individual is motivated to adopt the behavior and repeat it in the future. It is clear that social skills training groups endeavor to create a forum that can act as a catalyst to engender socially competent skills.

Variables Related to Social Skills

While it is clear that social skills training can support improved social skills and behavior, modern research has identified numerous physiological underpinnings related to these outward behavioral changes. Specifically, new knowledge about the brain has identified actual neurophysiological changes that occur secondary to social and emotional learning. Two neuroanatomical structures that are often implicated in the acquisition of social skills are the somatosensory/ insular cortices and the amygdala. Both play an important role in emotional regulation and the subsequent decision making that are integral factors associated with positive social interactions. This is consistent with the current understanding of executive functioning in the prefrontal cortex. This area provides a relay station for modulating emotionally intelligent behaviors such as inhibiting impulsive responses and social problem solving. Such research about physiological brain changes in response to social experiences (Brandt, 2004) further strengthens the argument for experiential group work with children who have limited social skills.

One factor that may play an important role in children's ability to engage in socially competent behavior is their ability to emotionally regulate their responses within the

context of peer interactions. It is easy to see how a child who is not able to internally monitor their impulses or delay gratification of their negative expressions when engaged in social situations with peers may be perceived of as out of control, unpredictable and generally not enjoyable to be around. The influence of emotional regulation can be seen with respect to peer acceptance, particularly in very young children. Specifically, researchers have investigated whether understanding of emotion influence children's success in their peer group. Denham, McKinley, Couchoud, & Holt (1990) concluded that popular children tend to be more adept in understanding emotional situations and are more pro-social.

Social Skills and Emotional Intelligence

One other potential mediating variable of social skills training group efficacy that has received relatively less attention in the literature, is emotional intelligence. Emotional intelligence is a construct that is difficult to define, both because of the controversy surrounding its inception and the numerous ways in which it is understood. Specifically, emotional intelligence is a broad construct, which encompasses a number of pre-defined skills and abilities that scientists have long identified. For example, emotional intelligence has been associated with self-awareness, empathy, social responsibility, adaptability, impulse control, independence, and even optimism. Clearly, emotional intelligence is a composite construct that can change significantly based upon the theoretical basis applied by an individual researcher's bias.

In an effort to attempt to address the multiple definitions of emotional intelligence, Baron & Parker(2000) compiled a comprehensive treatment of the subject (e.g., definition, development, and intervention) in, *The Handbook of Emotional Intelligence.*

Although, his text includes the work of his numerous colleagues, Baron's work itself is noteworthy for specifically addressing the presence and measurement of emotional intelligence in children.

Bar-On begins his treatment of emotional intelligence by identifying children's normal development in peer social relationships. While there is a vast literature identifying childhood development, there are specific developmental theories that have emerged in the scientific literature that serve as hallmarks of "normal" development. The following will summarize briefly this literature with a focus on school-aged children, consistent with the population addressed in this study.

One of the better-known theorists focusing on social development in children is the work of Kurt Lewin (1935). Lewin's popularly recognized "field theory" understands human social interactions as comprising both interpersonal personality factors as well as the characteristics of the environment in which they occur (Lewin, 1935). Specifically, Lewin identified reasons for why social groups and interactions could become ineffective or unproductive. Using "Force Field Diagrams" Lewin understands social interactions as a struggle of opposing forces about a particular issue. This struggle between "driving" and "restraining" forces result in particular social outcomes that can be modified by systematically understanding the environment and finding ways to balance opposing social forces (Lewin, Lippitt & White, 1939). It is thought that the resolution or balance of opposing social forces is an essential component of well-developed social skills. Clearly, this understanding of field theory can be applied to children attempting to navigate and master difficult social situations with peers.

Attachment theorists have long considered the family as the primary arena for learning socialization. They deem the child's role within the context of the family to be the initial mediating factor of how they will acquire the motives, values, knowledge and behavioral patterns that are needed to function adequately in the society in which they will live as adults. The major factors of communication, discipline, teaching styles and affective responses coupled with discipline techniques and the content of the values they are trying to transmit not only provide the modeling of future relationships, but also serve to predict children's individual differences in socialization characteristics. These have been "seen as the major factors whereby children become differentiated from one another in personality, interests, social motives, and social skills" (Maccoby, 1984). In this way, the history of the relationship between parent and child becomes the foundation from which the child builds all future meaningful social relationships.

During the school-aged years, the amount of direct contact between parent and child diminishes greatly. This stage is the time for entering school and includes the preadolescent period (from 10 to 12 years of age) that is a prominent age group of focus of this study. Parental monitoring becomes more distant as children spend less time in their homes and more time in school and in a world where they have to find their places. It is easy to see how at this time a child's self-concept, value system and cognitive capacities change. In addition, children enter the world of peer groups and their behavior is increasingly influenced by their peers. Maslow (1950) describes this stage of child development as a general acquisition of social needs. What begin as needs for belongingness and love quickly develop into the need for self-esteem. Socially, these needs manifest themselves as "the desire for strength, for achievement, for adequacy, for

mastery and competence, for confidence in the face of the world, and for independence and freedom" (Maslow, 1950). At this stage, the child begins to compare him/her self with classmates or playmates. It is at this time that a sense of belonging that makes the child feel accepted and as an integral part of the group and of the broader society occurs (Maslow, 1950). Developing and keeping friendships with one's peers quickly becomes a dominant role in preadolescent's development. Maslow asserts the importance of negotiating this stage for adequate social and emotional development.

Erikson's theory of the psycho-social development of children is also useful in understanding the growth of social skills in children ages six through twelve. Erikson theorized the existence of eight stages of sequential development that relate to the acquisition of specific emotional and social skills at particular ages (Erikson, 1963). In this model each life stage presents a set of corresponding developmental tasks or goals. Psycho-social development, Erikson believed, began with the acquisition of trust in the earliest stage where infants develop a sense of confidence in the care-giving relationship. Psychosocial development proceeds and at the ages of six through twelve, children struggle with issues of industry and inferiority. This stage is often termed latency, where the child must negotiate new social demands that occur external to their home (Saarni, 1999). Numerous objects external to the immediate family (e.g., teachers, peers) are essential to appropriate development during this time. During latency, children begin to understand the importance of acquiring explicit and implicit social rules through game-playing and through their interactions with peers. The ideal resolution of this stage is the development of competence that occurs when the child achieves a correct balance of industry and inferiority (BarOn & Parker, 2000). Specifically, well-adjusted children

develop mostly industry but also acquire a healthy amount of inferiority in order to preserve humility. Humility is particularly relevant to the development of social skills as children who do not display sufficient modesty with respect to their own abilities and knowledge often struggle to relate with their peers (Erikson, 1963). Social skills training groups often are observed to contain children with inadequate levels of humility and who are instructed to become more comfortable with their innate deficiencies. On the other hand, a more common malignancy in the latency stage is the development of an excess of inferiority, often termed "inertia". Also commonly referred to as "inferiority complex", these children lack confidence in their own abilities and do not develop healthy self-efficacy that supports social confidence.

Erikson's theory is particularly relevant to the development of socials skills and also the use of socials skills training groups with children exhibiting social deficiencies. Social skills training groups provide a forum for school-aged children to learn explicit and implicit social rules and to re-master social interactions through practice with other children. In this setting, children can learn to relate to their peers according to rules. As different types of play emerge from free play to structured play, children can learn to navigate their social environment that is often seamless and difficult to decipher. Social skills groups provide a naturalistic setting in which to practice the acquisition of these often elusive modes of interaction.

Based on the above theories, it is possible to draw conclusions regarding normal childhood development. Specifically, children with adequate social skills tend to thrive during early adolescence in terms of both their academic and social development (Harrington-Lueker, 1997). However, the social and emotional development of children

does not always proceed as expected. Specifically, there are often differences in the rate of intellectual and the rate of emotional development that can lend to social difficulties in school-aged children. Clearly, there can be a number of reasons for delayed or retarded social and emotional development. These reasons include genetic, cultural, environmental, and developmental factors that are at work to impact the overall social and emotional development.

Variables Effecting Emotional Intelligence

Innate or genetic factors often determine temperament or an organic predisposition that directs emotionally how one will respond to environmental influences. Temperament is believed to be associated with brain systems that control emotion, motivation, attention, and emotional regulation (Rothbart and Bates, 1998). Thus, temperament has direct influence on how children will navigate and manage social situations. However, genetic or innate influences cannot be studied in isolation from the social environment, which moderates how these genes are expressed.

Environmental influences also play an important role in the social development of a child. In particular, the social and emotional competencies of parents can be a strong determinant of whether or not children have the opportunity to learn and model pro-social behaviors. Thus, on both direct (i.e., parental teaching) and indirect (i.e., observation and modeling) levels, children may learn ways to successfully navigate social situations from their parents or caregivers (Elias et al, 2001).

In addition to genetic and environmental influences, the basic ability or aptitude to learn skills will influence social skills development. Specifically, children must possess the basic cognitive abilities that allow them to learn, recall, and implement skills acquired

in social situations. Clearly, successfully managing social situations requires the use of a comprehensive set of integrated skills and abilities. A child's ability to learn and integrate skills can have direct impact on their ability to handle complex social challenges (Saarni, 1999). Moreover, given that children begin to acquire an understanding of how to manage social situations during school-aged years, the importance of the development of basic cognitive skills such as monitoring the self in relation to others becomes vital as they enter school.

Social Skills Assessments

Given that there are numerous factors that influence a child's ability to develop pro-social behaviors and skills, the construct of emotional intelligence may summarize the multiple influences of each of these factors developmentally. Thus, while factors such as genetic influence and cognitive ability may be distinct psychometrically, the fusion of these components can more appropriately predict success in social situations. However, the multi-dimensional nature of emotional intelligence is a strength of the construct, this also presents a significant challenge in measurement. It has been argued, for example, that emotional intelligence may represent only a set of personality factors that might better be measured with a set of already existing personality measures. Furthermore, it might be argued, considering the wide scope of emotional intelligence, that it might literally include all relevant factors and variables with the exception of intelligence. Conversely, these arguments fail to understand the integrated nature of emotional intelligence where, by necessity, multiple factors work in unison to determine a child's ability to manage emotions and social situations. One attempt to integrate these factors

within a single model has been the work of Baron, who has succeeded in measuring these integrated variables with one core instrument.

In addition to BarOn's (2000) work, numerous other scales have been employed to attempt to define and measure the EQ construct. Gresham and Elliot (1990) developed the Social Skills Rating Scale (SSRS) which is used in elementary and secondary school students. The measure yields scores on three scales: social skills, problem behaviors, and academic competence. These scales are believed to generalize to numerous social competencies such as cooperation, self-control, empathy, and assertion. While these skills are encompassed within emotional intelligence, they fail to capture the complexity of the construct. For example, they do not address issues of adaptability, reality testing, flexibility, mood, and the ability to develop and maintain emotionally satisfying relationships. Thus, while the SSRS captures components of emotionality and social skills that lend to emotional intelligence they do not assess the complex, multi-faceted nature of the construct.

The Emotion Regulation Checklist (Shields & Cicchetti, 1997) is a 24-item observational measure that is used by parents or teachers to assess negative behaviors that originate from poor emotional regulation. Thus, the subscales purportedly capture levels of emotional understanding such as empathy, but focus directly on affective intensity and reactivity. The two sub-scales that emerge from this tool are Lability/Negativity and Emotion Regulation. While an effective measure of emotional regulation, as a measure of emotional intelligence the scale has shortcomings. Most noteworthy, the scale fails to capture the intra and interpersonal dimensions such as emotional self-awareness, self-regard, or the ability to establish mutually satisfying relationships. Additionally, the

emphasis on negative behaviors further fails to address the complexities of emotional and social interactions.

A third measure that has been suggested as a measure of emotional intelligence is the Behavior Emotion Rating Scale (EBRS; Epstein & Sharma, 1998). This is a 52-item survey that measures the behavioral and emotional strengths of children and adolescents. Parents or teachers who are familiar with the child complete the scale. The scale produces 5 subs-scales: interpersonal strengths, family involvement, intrapersonal strengths, school functioning, and affective strengths. These scales are thought to be generalizable to elements of emotional intelligence. Additionally, the scale yields an overall strength quotient believed to represent emotional competence. However, as with other scales, the EBRS also fails to assess adaptability and general mood, an important motivational variable that moderates other facets of intrapersonal relations, particularly in the face of adversity.

BarOn Emotional Quotient Inventory

For the purpose of this research study the BarOn Emotional Quotient Inventory, Youth Version (Short) (BarOn & Parker, 2000), was used. This multifactorial, self-report measure quantitatively evaluates emotional intelligence in a population of children ranging in age from 7 to 18 years. BarOn juxtaposes the factorial components of emotional intelligence, ranking them topographically ranging from "Core (or primary) Factors" to "Resultant (or higher-order) Factors" that are connected by a group of "Supporting (or secondary and auxiallry) Factors." (BarOn & Parker, 2000)

The three most important Core Factors of emotional intelligence are Emotional Self-Awareness (one's ability to recognize and understand one's emotions, moods, and

feelings), Assertiveness (one's ability to express emotions and feelings), and Empathy (one's ability recognize, understand and appreciate the feelings of others). Additional Core Factors that are no less essential to emotional intelligence are Reality Testing (the ability to validate one's feelings, thoughts and ideas by examining the correspondence between what one is subjectively experiencing and between what objectively exists in reality), and Impulse Control (the ability to control one's feelings, urges and impulses) (BarOn, 2000).

These Core Factors lead to Resultant Factors, such as more efficient Problem Solving (the ability to recognize and define problems as well as to generate and implement potentially effective solutions), Interpersonal Relationship (the ability to establish and maintain with others constructive relationships, characterized by feelings of emotional closeness), and Self-Actualization (the ability to actualize one's potential and to successfully accomplish that which one wants to and can achieve, and enjoys doing), which creates Happiness (the ability to feel content and satisfied with oneself and others and to enjoy life).

Based on BarOn's research, the Core Factors are dependant upon the Supporting Factors. For example, Emotional Self-Awareness is dependent upon Self-Regard (which includes a knowledge of oneself and of one's emotions), and Assertiveness depends upon positive Self-Regard and Independence (which includes emotional independence as well as self-defectiveness). Thus, it can be deduced that it is extremely difficult for dependent and especially, nonassertive people to express their feelings to others. Furthermore, Interpersonal Relationship is dependent upon Positive Self-Regard (which also includes self-acceptance) and Social Responsibility (which includes the ability to accept and

respect others, in addition to feeling that one is a responsible, cooperative and contributing member in one's social group). Additional Supporting Factors, like Optimism and Stress Tolerance, combine with Core Factors, like Reality Testing, and Impulse Control, to facilitate efficient Problem Solving is another important skill involved in positive social interaction. Lastly, Flexibility (the ability to adjust one's feelings, thoughts, and behavior to changing circumstances and situations) is another important supporting factor that contributes to other factors like Problem Solving, Stress Tolerance, and Interpersonal Relationship.

The BarOn EQ-i:YV's uniqueness lies in the way in which it combines an eclectic assortment of existing observations, theories, methodological strategies, research findings, and a comprehensive multifactorial nature (BarOn, 1997). It is clear that the assessment of emotional intelligence in children and adolescents is a relatively new phenomenon. The BarOn EQ-i:YV is the first instrument to be published that assesses emotional intelligence in children and teenagers. It was constructed by empirically generating items to fit specific operationally defined factors and is given in self-report form. In this way, observational data is not needed to assess a child's emotional intelligence over time. Another advantage of the BarOn EQ-i:YV, Short Format is that it is fairly brief in comparison to many other self-report inventories (e.g., MMPI-2, CPI, and PAI). This elicits more cooperation from the child and teen respondents who are taking the measure.

There are a multitude of potential uses for the BarOn EQ-i:YV, both in school and clinical settings. Schools can use this measure to help identify students who are unable to adequately cope with the social and emotional demands in their environment that could

lead to possible development of emotional problems. Similarly, The BarOn EQ-i:YV can also be used to pinpoint children and teens with poor social responsibility and difficulties with impulse control that could lead to violent behavior if left unchecked. The Bar On EQ-i:YV's greatest strength lies in assessing adolescent's general degree of emotional intelligence, potential for emotional health and present psychological well-being. Its use as a diagnostic tool to help predict the outcomes of various interventions is a burgeoning use of this innovative measure. Certainly, evaluating the effectiveness of many remedial programs, therapeutic modalities, and treatment-oriented services can be drawn by implementing the Bar On EQ-I:YV to assess emotional intelligence.

The present study improves upon past research by attempting to examine changes in emotional intelligence as measured by the BarOn EQ-i:YV(S) among children participating in a social skills training group. By isolating the emotional intelligence construct, this study provides a greater understanding of the specific mechanisms by which adequate social skills develop and can be re-mastered. To this end, pre and post measures were given to both the treatment group who underwent an eight week social skills training program as well as a control group who were awaiting placement in a group. Differences in the total EQ scores, along with the five sub-scale scores produced by both groups will then be analyzed to assess pre to post intervention differences. In addition, gender differences will be calculated. Research is sparse with respect to assessing the emotional intelligence of adolescents due to the fact that there has never before been a valid measure to assess this construct with any level of reliability. There are no studies to this author's knowledge that have examined how adolescents' emotional intelligence may be altered by participating in social skills training groups.

Chapter III

METHODOLOGY

The purpose of this chapter is to describe the methods and procedures used in this investigation. A description of the research sample and design as well as the instrumentation to be utilized is delineated below. In addition, an explanation of the data analysis is presented.

Participants

Participants were 24 children identified with social skills deficits. These students were referred by various teachers, counselors, psychologists and developmental specialists who have identified them as either isolated, peer rejected or in some way socially deficient. In addition, each child participant was screened for social skills deficits during their clinical interview, as conducted by the social skills coordinator, prior to enrollment. Children were recruited for this project from the Family Development Center, located in Morristown, New Jersey. All prospective study participants were waiting to begin an 8 week social skills training program. Included children ranged in age from 7 to 9 years. Both males and females were recruited. Children from various ethnic backgrounds were included in this study.

It is important to note that participation in this study was strictly voluntary and anonymous. In other words, the children were not treated any different in these groups whether or not they choose to be a part of this research endeavor. Children were able to withdraw from answering the questions or participating in this study at any time. There was no penalty if any child decided to discontinue participating. Information obtained

from the study was reported only as grouped data in order to maintain confidentiality. Anonymity was guaranteed, as children did not put their name on the measure. The information obtained was be anonymous, strictly confidential, and was reported in a way in which protected the identities of the children participating.

Although there are no anticipated risks in filling out the BarOn EQ-i:YV, the group facilitator was available to answer any questions or concerns that the children might have about the questionnaire, as well as to discuss his/her feelings about the measurement. The facilitator was available both during and after participation or by phone. The results of this study are available for parents upon request. Parents were invited to review the results of this study. Due to confidentiality issues, identifying information or a particular child's results were not revealed. Any subject was able to end their participation at any time during the course of the study or group for any reason without consequence.

Procedures

Children were solicited by mailing a permission letter to parents of prospective children requesting participation in a study designed to measure the influence of social skills training on children's emotional intelligence. Parents had the opportunity to accept or reject participation with no consequence to their child's admission in these groups. Similarly, children were asked to complete a form of assent read to them by their parents. The child assent form was written at a level appropriate for 7 to 9 year old children. Both letters contained information that explains the study and how it may be beneficial to the understanding of social skills training in children. Interested parents returned the letter along with a form indicating the consent and child assent forms to participate in this

study prior to attending the first training session. They also were asked to have their child complete the Bar-On EQ:i-YV(S), which served as their pre-intervention measure of emotional intelligence. A young child can complete this measure with little to no difficulty in an average of 10 minutes. Parents were instructed to read the directions to their children and subsequently allow the children to complete the measure on their own. Children who did not participate did not return any study-related materials. All research materials were addressed to the research assistant, who administrated the study. Study materials contained no identifying information. Instead, all participants were assigned a code number to protect anonymity.

This study had two groups. An immediate treatment group and a waitlist control group was randomly created based on the time of group enrollment and ability to attend scheduled sessions. Children in the immediate treatment group began the social skills training within 2 weeks of consent. The control group received no social skills training until the beginning of the next training cycle (approximately 10 weeks). The principal investigator was blind to group assignment.

A trained, licensed psychologist facilitated the group. Children were reminded that they could withdraw from the study at any time without repercussions. The same therapist served as a facilitator for each group. She implemented the preordained Social Decision Making Skills Paradigm (Elias & Clabby, 1989), and covered the same areas each week with each group. This paradigm follows a common behavior modification and problem resolution program that is both educational, instructive and has in the past been field-tested to show to "have a positive effect on self-esteem, critical thinking, interpersonal relations, assertiveness, refusal skills, responsibility, social awareness, and

cooperative learning" (Elias & Clabby, 1989). The participants then underwent the specific treatment program delineated by Elias and Clabby. Appendix A provides a copy of the resources used to implement a program of this nature. Please refer to Appendix A for specific content.

After participation in social skills training all children were again asked to complete the BarOn-EQ-i:YV(S). Parents were debriefed and study results were made available to interested parents. Participants in the study were volunteers and were treated in accord with the ethical and research standards of the American Psychological Association.

Instrumentation

The rating scale used to operationalize the primary dependant variable of social skills and thus, emotional intelligence in this study is the BarOn Emotional Quotient Inventory: Youth Version (BarOn EQ-i:YV; BarOn, 2000). A copy of this self-report instrument appears in the appendix. The BarOn-EQ:iV (BarOn, 1997) provides a broad, norm-referenced assessment of children's emotional intelligence.

This is the only known empirically validated and reliable measure of Emotional Quotient for children under the age of 18 available today. The reading level of this instrument is appropriate for the population under study. To date, no studies have been located that utilize this particular version of the BarOn EQ-i:YV.

More specifically, the BarOn Emotional Quotient Inventory: Youth Version-Short (BarOn EQ-i:YV(S)) is an easily administered self-report instrument that is the first measure of its kind to assess emotional intelligence in young people aged 7 to 18 years. Separate norms are available for males and females in 3 year intervals. The interval of

interest in this study is the 7 to 9 year old group. The instrument consists of 30 items that are distributed across 7 scales: Interpersonal, Intrapersonal, Adaptability, Stress Management, General Mood, Positive Impression, as well as an Inconsistency Index, designed to identify random responding. These scales relate to the specific cross-section of abilities and competencies that constitute the core features of emotional intelligence. (BarOn & Parker, 2000) By examining the individual scale scores one can pinpoint specific strengths and weaknesses of a respondent's emotional intelligence. Furthermore, an overall level of emotional intelligence (Total EQ scale) is retrieved using this measure. The Total EQ score gives a general indication of how emotionally and socially intelligent the respondent is in general. The BarOn EQ-I:YV uses a 4-point Likert-style format in which respondents are asked to rate each item as to the extent that they relate to them. The response options are "Very Seldom True of Me," "Seldom true of Me," "Often True of Me," "Very often True of Me." The various BarOn EQ-i:YV scales were developed so that higher scores indicate increased levels of emotional intelligence.

The authors established the psychometric properties of this measure by evaluating the measure within a large sample of children from various elementary schools located throughout the United States. As with the present study, normative data was based on children of various ethnic and racial backgrounds. Normative data used for comparison was based on children age 7 to 9 years old. Both males and females were well represented in the normative data. Thus, normative data selected compares closely to the expected research population.

With regard to reliability, internal consistency coefficients ranged from 0.65 to 0.89 suggesting moderate reliability for this measure. Test-retest reliability coefficients

were also moderate, ranging from 0.55 to 0.92. In order to establish construct validity the BarOn EQ-i:YV(S) was compared to various other psychometric tests. Most notably, the NEO- Five Factor Inventory (NEO-FFI); (Costa & McCrae, 1992), Children's Depression Inventory (CDI); (Kovacs, 1992) and the Conners-Wells Adolescent Self Report Scale (CASS); (Conners, 1997) as well as the Conners Parent Rating Scale-Revised version (CPRS-R:S); (Conners, 1997) were compared to the BarOn EQ-i:YV(S). On the NEO-FFI significant validity coefficients ranged from 0.14 to 0.56, suggesting low to moderate convergent validity. On the CDI significant convergent validity coefficients were slightly higher ranging from 0.32 to 0.61. On the CASS, significant validity coefficients range from 0.28 to 0.51. Finally, on the CPRS, moderate significant convergent validity also was observed with the CPRS-R, with values ranging from 0.42 to 0.51. Altogether, these studies suggest that the BarOn EQ-i: YV relates well with other measures of children's social and emotional development.

The psychometric properties of the Baron EQ-i:YV(S) have been established. Reliability of the measure has been established using both test-retest and measures of internal consistency (Bar-On, 1997). Studies of test-retest reliability produced coefficients of stability that average 0.85 after one month and 0.75 following four months from initial administration. These moderate coefficients suggest both the stability of the measure and also the dynamic nature of the construct, where emotional IQ might be expected to develop and change over time.

The internal consistency of the Baron EQ-i:YV(S) in this study given Cronbach's alpha coefficients, were found to be high for all of the subscales and ranged from a low of 0.69 (social responsibility) to a high of 0.86 (self-regard). Overall average internal

consistency coefficients were 0.76. These coefficients of consistency suggest that items share similar variance and likely estimate closely true score.

A number of indices of validity also have been established. Validity of the measure was examined with exploratory factor analysis (Bar-On, 1997). The analysis employed a principal components procedure with varimax rotation to produce numerous significant factor loadings that establish the construct validity of the instrument. Overall, all items loaded at least moderately on their corresponding factor. Notably, the items were not factor complex, where they loaded only on their corresponding index but did not load significantly on non-corresponding factors. Thus, factor analytic studies support the ability of the instrument to measure the desired construct.

Construct validity also was established by comparison of the instrument with basic measures of personality (i.e., NEO-FFI; Costa and McCrae, 1992). The NEO-FFI, a 60-item self-report inventory, measures personality across 5 generic dimensions: extraversion, introversion, agreeableness, openness to experience, and conscientiousness. Correlations establishing convergence between the Baron EQ-i:YV(S) and the NEO-FFI produced correlations ranging from 0.07 to 0.57. These coefficients suggest that the Baron EQ-i:YV(S) correlates significantly with indices of personality, where individuals with greater levels of emotional IQ tend to score higher on measures of personality.

While there is sufficient evidence to support the psychometric properties of this instrument, there is still a need for ongoing exploration into the reliability and validity of the Baron EQ-i:YV(S). Initial studies have produced positive results that find significant correlations between the Baron EQ-i:YV(S) and measures of other corresponding constructs. Further, the validity of the Baron EQ-i:YV(S) has been supported in factor

analytic studies. Stability also has been consistently supported by studies of reliability, which have found strong test-retest and internal consistency. Thus, the measure is expected to be tapping a strong degree of true score, with only minimal error variance. Further studies of psychometric properties would be expected to continue to produce evidence to support the construct validity and the test-retest reliability of the Baron EQ-i:YV(S) and support its use across numerous child populations.

It has been demonstrated that the BarOn EQ-i:YV(S) is capable of providing a reliable and valid measure of emotional intelligence. The emotionally healthy, well functioning adolescent is expected to receive average to above average scores on the BarOn EQ-i:YV(S) for their age. The higher the scores on most of the scales, the more positive the prediction for general social and emotional success as well as general success in meeting environmental demands and pressures (BarOn, 1997). On the other hand, the existence of poor social skills and possible emotional problems are a function of the extent and degree of deficiency evident in the assessed factors directly derived from the BarOn EQ-i:YV(S) over time.

Even though the BarOn EQ-i:YV(S) has an inconsistency index that is designed to detect participants that respond in a haphazard or unmotivated fashion, the self-report nature of this measure is an inherent limitation. Adolescents, in particular may be deliberately trying to distort their results for one reason or another. One possibility is that they believe they are answering the questions in the way in which makes them appear more socially savvy. This is consistent with the demand characteristics of all self-report measures in an experimental situation where respondents answer in a way in which they believe the examiner would want them to.

Statistics

Individual item scores obtained on the BarOn EQ-i: YV will be summed for each participant to produce the general, overall Total EQ Scale, as well as, specific, individual sub-scale scores. This will be done for data obtained both pre and post-intervention. Summary statistics, in the form of means and standard deviations, will be compiled and presented in tabular format.

Hypothesis 1 will be tested by comparing mean scores obtained pre-intervention with mean scores obtained post-intervention, using a one-way, repeated measure analysis of variance (ANOVA). This inferential statistic was employed in order to determine if differences observed pre and post-intervention were the result of the independent variable (i.e., social skills training) or merely the result of chance. A repeated measure ANOVA was selected over analytical models, because it allows one to examine differences that occur over time while taking into account individual participant variance. ANOVA tests for mean differences by comparing the ratio of between group variance to within-group variance, in order to determine the effect size of the intervention. Larger effect sizes are likely to achieve statistical significance and would, therefore, demonstrate that a social skills training group is an effective intervention for improving emotional intelligence in children.

Hypothesis II will be tested using a series of independent ANOVAs, aimed at determining if mean differences observed on individual pre to post-intervention scales are due to chance or the intervention. As described above, ANOVA again was selected as it allows for the most accurate comparison of between and within group variance.

Consistent with Hypothesis II, it is expected that only the Interpersonal and Stress Management sub-scales of the BarOn EQ-i: YV will reach statistical significance.

In order to test Hypothesis III, data will be divided on the basis of the gender of the participant. The goal will be to determine if Total BarOn EQ-i: YV scores vary between males and females. ANOVA will be used to examine mean differences in order to determine, as hypothesized, if females do, in fact, score higher than males in post-intervention Total EQ.

Power Analysis

Overall, power is related to sample size, anticipated effect size, alpha, and the number of variables investigated. Overall power analysis revealed that a total of 30 subjects (15 per group) will be required in order to detect mean differences using ANOVA where they exist. This will reduce the likelihood of Type II error. This power analysis was based on parameters where effect size (Cohn's d) was set at 0.80, alpha was set at 0.10 and power was set at 0.80. The effect size estimate was based on mean differences obtained in a reliability study of the Bar-on Emotional Quotient Inventory (Dawda & Hart, 2000). Given these parameters total sample size needed to detect a treatment effect was estimated to be 30 participants (15 per group). Of these subjects, 15 children will participate in the experimental group and 15 will comprise the waitlist/control group.

Chapter IV

RESULTS

The purpose of this chapter is to present the results related to the research hypotheses. The chapter begins by initially presenting descriptive statistics representing participant demographic characteristics and relevant research variables. Next, inferential statistics used to test research hypotheses are presented. The chapter concludes with a brief summary of the results.

Sample Demographic Composition

The recruited sample consisted of 24 participants. Of these 24 children, 12 (50%) were female and 12 (50%) were male. Participants ranged in age from 7 years to 12 years, with an average age of 9.84 years (SD = 1.34). These demographic characteristics were then examined by group.

The treatment group was comprised of 8 (66%) males and 4 (33%) females, while the control group was comprised of 4 (33%) males and 8 (66%) females. There were no statistical group differences in gender composition ($X^2 = 2.67, p = .10$). With regard to participant age, the treatment group ranged in age from 7 to 12 years, with an average age of 9.44 years (SD = 1.65). The control group ranged in age from 9 to 11, with an average age of 10.42 years (SD = 0.67). There were no statistically significant group differences in age ($t = 1.90, p = 0.70$).

Research Variables

Participants were assessed with the BarOn EQ:-i:YV(S), a measure of emotional intelligence in children and adolescents, at baseline and again following the 8-week social skills intervention. The BarOn, comprised of 30 individual items, generates four

sub-scale scores and one overall composite total score. Descriptive statistics, consisting of means and standard deviations of the raw sub-scale scores at baseline and post-intervention are presented, aggregated by study group, in Table 1.

Table 1

Means and (Standard Deviations) for BarOn EQ-i:YV(S) Raw Scores

	Treatment Group		Control Group	
Sub-scales	Baseline	Post-Intervention	Baseline	Post-Intervention
Intrapersonal	13.67 (3.50)	14.58 (2.35)	13.83 (2.08)	14.00 (1.71)
Interpersonal	19.92 (2.27)	19.50 (2.54)	19.92 (2.15)	19.58 (1.68)
Stress Management	17.42 (4.46)	17.42 (3.63)	16.25 (1.60)	15.92 (1.73)
Adaptability	17.75 (3.44)	20.58 (3.34)	18.25 (4.47)	17.08 (2.81)
Total EQ	68.83 (10.62)	69.16 (6.93)	68.25 (6.12)	67.16 (4.95)

Initial inspection of values contained in Table 1 indicates that while there appears to be a trend toward improved scores from pre to post-intervention, these differences are relatively small. An exception, however, is the Adaptability scale of the BarOn in which participants in the active treatment group experience a modest increase (+15.9%). Notably, participants in the wait-list control group experienced a mild decrease in the adaptability scale (-6.4%).

Group Equivalence at Baseline

An independent samples t-test was used to examine for potential treatment and control group differences in study variables at baseline. The results indicated that the control and treatment groups did not differ at baseline on any sub-scales of the BarOn

EQ-i:YV(S). Specifically, group equivalence was observed for the intrapersonal ($t = .14$, $p = 0.89$), interpersonal ($t = .00$, $p = 1.00$), stress management ($t = -.85$, $p = 0.40$) and adaptability ($t = .30$, $p = 0.76$) scales, as well as, for the total EQ composite score ($t = -.17$, $p = 0.87$).

Analysis of Hypotheses

Prior to conducting statistical analyses, appropriate statistical assumptions were verified. The following assumptions for a general linear model were met: the variables were distributed normally, the variables share a linear relationship, variables do not share a substantial proportion of variance (multicollinearity), and none of the variables are a linear combination of others (singularity). The general linear model, upon which inferential statistics are based, was employed to examine the relationship between dependent variables and independent variables. The results are described below.

Hypothesis 1

There will be a statistically significant difference between children who participate in social skills training and children in a wait-list control group, pre to post intervention, on the Total EQ score of the BarOn EQ-i:YV.

Based on the results of statistical analyses Hypothesis I was not supported. A 2 (group) x 2 (time) repeated measure analysis of variance (ANOVA) was employed to examine group differences (treatment vs. control) over time (pre to post-intervention) on total emotional intelligence (BarOn EQ-i:YV). Table 2 presents the ANOVA summary table for the group and time main effects, as well as, for the group x time interaction. For the main effect of group, the observed F value did not exceed the critical value at the specified number of degrees of freedom [$F(1, 22) = 0.20$, $p = 0.66$), suggesting no

statistical pre to post-intervention group differences in overall BarOn scores. There also was no significant main effect for time [$F(1,22) = 0.13, p = 0.72$), suggesting no *overall* statistical improvement for either group throughout the course of the intervention, as measured with the BarOn instrument. The group X time interaction also was not significant [$F(1,22) = 0.48, p = 0.50$), suggesting that study groups did not as a function of time (pre or post-intervention).

Table 2

Analysis of Variance Summaries for Pre to Post-Intervention Total BarOn Scores

Source	SS	df	MS	f	p
Group					
Between	20.02	1	20.02	0.20	0.66
Within (Error)	2170.5	22	98.66		
Time					
Between	1.68	1	1.68	0.13	0.72
Within (Error)	278.79	22	12.67		
Group x Time					
Between	6.02	1	6.02	0.48	0.50
Within (Error)	278.79	22	12.67		

Hypothesis 2

It was hypothesized that there will be significant pre to post intervention differences on the five sub-scales of the BarOn EQ-i:YV: Intrapersonal, Interpersonal, Adaptability, Stress Management, and General Mood.

Based on the results of statistical analyses Hypothesis II was partially supported. A series of four(4), 2 (group) x 2 (time) repeated measure analyses of variance (ANOVAs) was employed to examine group differences (treatment vs. control) over time (pre to post-intervention) on the four BarOn EQ-i:YV subscales.

Interpersonal Scale

There were no significant group or time differences observed on the interpersonal scale of the BarOn EQ-i:YV. Specifically, there was no main effect of group [$F(1, 22) = 0.003, p = 0.96$], suggesting no statistical pre to post-intervention group differences in interpersonal BarOn scores. There also was no significant main effect for time [$F(1, 22) = 0.868, p = 0.36$], suggesting that the groups did not improve statistically over time. Further, the group x time interaction was not significant [$F(1, 22) = 0.011, p = 0.92$].

Intrapersonal Scale

There were no significant group or time differences observed on the intrapersonal scale of the BarOn EQ-i:YV. Specifically, there was no main effect of group [$F(1, 22) = 0.047, p = 0.83$], suggesting no statistical pre to post-intervention group differences in intrapersonal BarOn scores. There also was no significant main effect for time [$F(1, 22) = 2.25, p = 0.15$], suggesting that the groups did not improve statistically over time. Further, the group x time interaction was not significant [$F(1, 22) = 1.08, p = 0.31$].

Stress Management

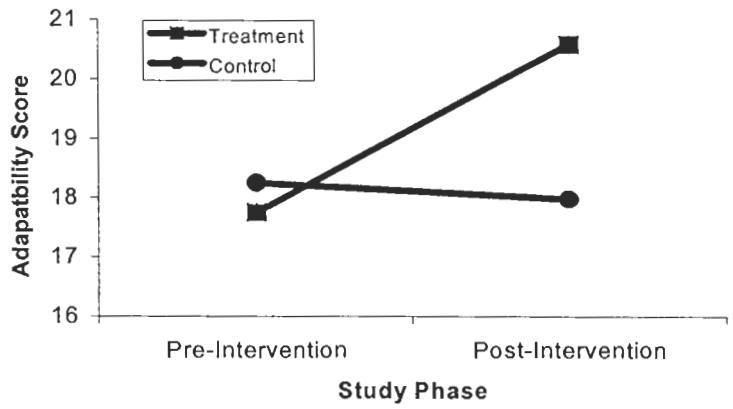
There were no significant group or time differences observed on the stress management scale of the BarOn EQ-i:YV. Specifically, there was no main effect of group [$F(1, 22) = 1.250, p = 0.28$], suggesting that were no group differences in stress management skills. Similarly, there was no main effect for time [$F(1, 22) = 0.146, p =$

0.71], suggesting that the groups did not improve statistically in stress management skill over time. The group x time interaction also was not statistically significant [$F(1, 22) = 0.146, p = 0.71$].

Adaptability

There were significant differences observed on the adaptability scale of the BarOn EQ-i:YV. Specifically, while there were no main effects for group [$F(1, 22) = 0.24, p = 0.06$] and no main effect for time [$F(1, 22) = 1.25, p = 0.28$], there was a statistically significant interaction between group and time [$F(1, 22) = 7.20, p = 0.01$]. The interaction, as depicted in Figure 1, suggests that at baseline the two groups did not differ significantly in reported adaptability. However, following the intervention, the treatment group reported significantly greater adaptability ($M = 20.58$, SD = 3.34) than the control group ($M = 17.08$, SD = 2.81). Notably, the control group experienced a mild, but not statistically significant, decrease in adaptability [$t(11) = 0.97, p = 0.35$].

Figure 1: Pre to Post-Intervention Adaptability Scores



Hypothesis 3

It is hypothesized, that post-intervention, females will produce significantly higher BarOn EQ:i,YV scores than male participants.

Gender

The recruited study sample contained 50% male children (n = 12) and 50% (n = 12) female children. Mean subscale scores and corresponding standard deviations, aggregated by gender, are displayed in the Total column of Table 3 In order to determine if gender impacted post-intervention scores, one-way analyses of variance were employed. The multivariate statistic was not chosen in order to preserve power within this small sample. The results indicated that males did not differ statistically from females post-intervention on any of the BarOn subscales. Specifically, statistical significance was not reached for the intrapersonal [$F(1, 22) = 2.41, p = 0.13$], interpersonal [$F(1, 22) = 0.08, p = 0.78$], stress management [$F(1, 22) = 0.17, p = 0.68$], adaptability [$F(1, 22) = 0.47, p = 0.50$], or total EQ [$F(1, 22) = 1.37, p = 0.25$] scales. Please refer to Table 3for individual means.

Table 3

Post-Intervention Means and (Standard Deviations) for BarOn EQ-i:YV(S) Raw Scores Aggregated by Gender and Group

	Treatment Group		Control Group		Total (Combined)	
Sub-scales	Males	Females	Males	Females	Males	Females
Intrapersonal	14.38	15.00	16.00	13.00	14.92	13.67
	(2.33)	(2.71)	(1.15)	(0.76)	(2.10)	(1.83)
Interpersonal	19.63	19.25	19.75	19.50	19.67	19.42

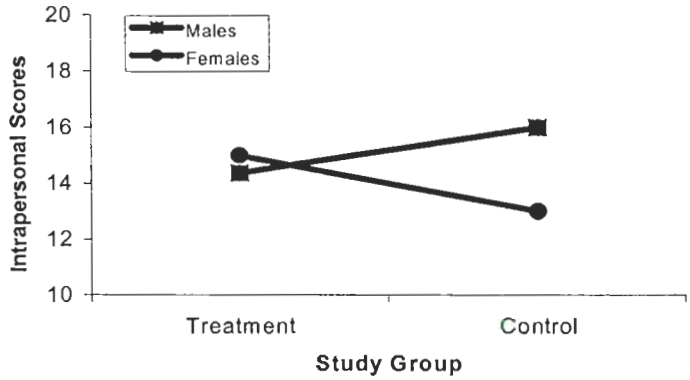
	(2.67)	(2.63)	(2.63)	(1.19)	(2.53)	(1.68)
Stress Management	17.50	17.25	14.25	16.75	16.42	16.92
	(4.14)	(2.87)	(0.96)	(1.39)	(3.70)	(1.88)
Adaptability	20.25	21.25	17.50	16.88	19.33	18.33
	(3.33)	(3.77)	(4.80)	(1.55)	(3.90)	(3.17)
Total EQ	69.38	68.75	70.00	65.75	69.58	66.75
	(5.97)	(9.60)	(5.66)	(4.23)	(5.62)	(6.22)

Gender and Group

It was hypothesized, given the unequal distribution of males and females in the study groups, that assigned group might share a statistical interaction with gender. Therefore, as a *post-hoc*, exploratory analysis two-way (group and gender, as independents) analyses of variance (ANOVA) was employed to examine for interactions of gender and group.

The result indicated that only the intrapersonal sub-scale of the BarOn produced a significant result. Specifically, while the group [$F(1, 20) = 0.05, p = 0.82$] and gender [$F(1, 20) = 2.22, p = 0.15$] main effects were non-significant, the statistical interaction between gender and group was significant [$F(1, 20) = 5.16, p = 0.03$]. This result, as depicted in Figure #2, suggests that gender did not impact performance in the treatment group (i.e., male and female children performed the same). However, among children assigned to the wait-list control, males tended to produce greater intrapersonal scores than females.

Figure 2: Post-Intervention Intrapersonal Scores



Exploratory Analysis

It was hypothesized that participant age might be a factor related to study outcome variables. In order to determine if age was related to pre-intervention and post-intervention BarOn scores, Pearson bi-variate correlations were employed. When age was correlated with pre-intervention scores, the results indicated that age correlated with the stress management sub-scale [$r(24) = -.396, p = 0.05$] and with the total, composite BarOn EQ score [$r(24) = -0.41, p = .048$]. These results indicate that younger children reported higher stress management and higher BarOn scores at baseline than older children. Notably, when post-intervention BarOn scores were correlated with age, no significant correlations emerged.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

The purpose of this chapter is to examine and discuss the present research as it relates to obtained results. Efforts will be made to address the current literature in order to understand results from within a broader theoretical context. In particular, attention will be paid to theories such as social cognitive perspective (Bandura, 1977), field theory (Lewin, 1935), hierarchical need theory (Maslow, 1950) and developmental psychology (Erickson, 1963). Finally, limitations of the present research will be addressed, with an eye towards identifying areas of future research.

Discussion of Results

The present study sought to examine how emotional intelligence, among children with social skills deficits, changes after participation in social skills training groups. Specifically, it was hypothesized that children who participate in socials skills training will experience significantly improved emotional intelligence when compared to a wait-list control group. Further, it was hypothesized that females would produce higher emotional intelligence scores, overall, when compared to males following participation in socials skills groups. In order to assess changes in emotional intelligence, the BarOn EQ-i:YV(S) was employed. This 30-item instrument produces scores in a variety of domains of emotional intelligence; each were examined for pre to post intervention change as part of this research.

The first hypothesis examined the total emotional intelligence composite score, produced by the BarOn EQ-i:YV(S) for pre to post-intervention changes for both the treatment and control groups. It was expected that children enrolled in the social skills

training groups would produce higher BarOn EQ-i:YV(S) scores when compared to children assigned to the wait-list control group. In this sample of 24 children age 7 to 12, the results indicated that there were no significant differences between these two groups on the total BarOn EQ score. As a result, the null hypothesis is accepted indicating that that there were no detected differences in emotional intelligence between children who received social skills training and children who did not receive this intervention. While there has been no research specifically examining changes in emotional intelligence as it relates to social skills training, this present result is still surprising, given the likelihood that numerous other psychological processes are expected to be impacted through the course of skills training. Specifically, social skills groups may provide a forum for the modeling of positive social behaviors and positive social interactions (Kilgore, 1994) that would improve awareness of social skills and lead to more satisfying interpersonal relationships (Bierman et al, 1987).

Given that emotional intelligence is a novel construct and that there is a paucity of research and instruments available to both define and measure the nature of this ambiguous construct, it should be noted that BarOn provided the initial conception of emotional intelligence, as defined by his instrument (BarOn EQ-i:YV(S)) in both adults and children. His work was notable for its empirical validation, however, there have been other researchers that preceded Baron in their conception and validation of an adult measure of emotional intelligence (Mayer & Salovey, 1993). Indeed, BarOn provides the only scale of emotional intelligence for children, which limits the identification of the construct to his conceptualization and identified components. Thus, it is possible that while the BarOn did not identify changes in emotional intelligence within this sample of

children, other measures (MSCIET; Mayer & Salovey, 1993) based upon other conceptualizations of this construct, may have produced different results. Specifically, the Mayer-Saalovey-Caruso Emotional Intelligence Test (MSCEIT), based on an ability model of emotional intelligence, uses a variety of creative tasks to appraise one's ability to perceive, use, understand and manage their emotions. It generally focuses on the assessment of a respondent's capacity to reason with emotional information. The MSCEIT is not currently available to test people under the age of 18. Therefore, future studies that employ the use of scales currently in development may illuminate changes in emotional intelligence that occur as a result of participation in social skills training groups.

In Hypothesis II the specific sub-scales of the BarOn EQ-i:YV(S) were examined to determine if the treatment group differed significantly from the control group in any of the components of emotional intelligence. Specifically, it was anticipated that children assigned to the treatment condition would have significantly improved BarOn EQ-i:YV(S) sub-scale scores compared to children in the wait-list condition. The results indicated that this hypothesis was partially supported in that of the five sub-scales of emotional intelligence that BarOn delineates, one emerged significant. Children who received social skills training experienced significant improvements in adaptability ($p < 0.05$) when compared to children who did not receive this training.

This result was expected given the focus that the present social skills training groups had on social problem-solving and decision-making skills (Elias & Clabby, 1989). Specifically, adaptability, as conceived by BarOn is comprised of three sub-components: reality testing, flexibility, and problem solving. Reality testing refers to an ability to

assess the difference between one's reactionary emotional experience and an objective appraisal of an interaction. Children with developed reality testing have the ability to process an experience using a cognitive, logical approach as opposed to reacting to their personal sensitivities. Similarly, flexibility relates to a child's ability to adjust to various social situations. Children with flexibility are able to appraise the need characteristics of a social situation and adapt their responses to that environment. Further, flexibility allows children to generalize skills obtained in one situation and employ them successfully in future situations. The final element of adaptability, as defined by BarOn, is problem solving. This factor involves the ability to define problems and further generate and implement potentially effective solutions.

Problem solving is particularly relevant to the social decision making curriculum employed in this study's 8-week social skills training model. Furthermore, other studies have utilized cognitive, problem-solving approaches designed to improve childrens' management of everyday social challenges (Peterson & France, 1992). In fact, many studies have shown the potential benefits of using a preventative social skills training approach in an effort to improve social skills (Durlak, 1995; Elias, 1986; Shure & Spivack, 1982). It is notable, however, that the present results are in contrast to Peterson and France (1992) who found no support for the efficacy of their Stop-Think-Do approach to social skills training. This approach reinforces children for their patience, self-control, and cooperation. One reason for the difference in outcome between Peterson & France and the present study is the use of different outcome measures. Specifically, Peterson and France employed a non-validated, Likert-style assessment scale to measure peer acceptance, aggressiveness, self-confidence, coping ability, maturity, and ability to

retain friends. While the Stop-Think-Do technique supports problem-solving skills it is notable that the outcome measure employed did not directly assess any components of problem-solving. It is possible that Peterson & France may have obtained more substantial results had they used an outcome measure that was more consistent with the skills their system engendered. The BarOn EQ-i:YV(S), as employed in the present study, may have more directly assessed the cognitive components of social skills that the Stop-Think-Do approach advocates.

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Hypothesis 3 attempted to determine if gender differences were present in BarOn EQ-i:YV(S) scores. Specifically, it was hypothesized that following the social skills group intervention, females would produce higher BarOn EQ-i:YV(S) scores than males. The results indicated that this hypothesis was not upheld and that males and females did not differ significantly in any of their BarOn EQ-i:YV(S) sub-scale scores. As a further exploratory analysis, gender differences were examined between the treatment and control group. Specifically, a factorial ANOVA was used to examine the group X gender interaction term. The results indicated that among the subscales and the total composite score, only the intrapersonal subscale achieved statistical significance ($p < 0.05$). Specifically, it was found that males assigned to the wait-list control condition produced significantly greater intrapersonal scores than both females in this condition and all participants in the active treatment group.

The purpose of testing this hypothesis was to explore for gender differences that may have impacted participant's ability to acquire and employ components of emotional intelligence that contribute to positive social skills. Specifically, it was believed that males and females might differ in their ability to acquire components of emotional intelligence. BarOn (1997) lists "the three most important Core Factors of emotional intelligence as Emotional Self-Awareness, Assertiveness, and Empathy". While, it is clear that children with social skills deficiencies often lack these core factors, there is sparse research literature to suggest that females can be more developmentally advanced and often place greater emphasis on intrapersonal relationships than males at this age (Crombie, 1988). Similarly, females often are socialized to believe that the expression and communication of their emotions and needs are both acceptable and desirable,

whereas males often learn the opposite (Stein & Bailey, 1973). Thus, it would be likely that emotional self-awareness, one of the core features of emotion intelligence, might more easily be reinforced among females engaged in social skills training. Furthermore, Crombie (1988) believes, "it probably is easier during middle childhood to teach social skills to girls than to boys." Given this, Hypothesis III attempted to determine if the traditionally more-developed emotional self-awareness of girls at this age would improve the acquisition of emotional intelligence following social skills training.

Despite a literature-based rationale for this hypothesis, the results did not support the assertion that females would produce significantly greater BarOn EQ-i:YV(S) scores than males. Notably, males in the wait-list condition produced greater intrapersonal sub-scale scores than both females in the wait-list condition as well as all participants in the treatment groups. A number of factors may have accounted for this unexpected outcome.

BarOn identifies five specific components of the intrapersonal sub-scale. These include emotional self-awareness, assertiveness, self-regard, self-actualization, and independence. While it was originally believed that emotional self-awareness and self-regard, (i.e., including knowledge of one's self and one's emotions) often more associated with females, would allow for the greater improvement in intrapersonal skills following social skills training, obtained results suggest that independence and assertiveness, often observed in males of this age, may have played a more important role. Thus, despite not engaging in social skills training, the independence and assertiveness often associated with males at this age level may have been altered by other circumstances outside the treatment paradigm.

Another potential reason for these unexpected findings may be related to characteristics of the collected sample. Specifically, the waitlist control group was comprised of students who were unable to participate in skills training groups after school due to scheduling conflicts. Following completion of the study, it was learned that many of the males, who were unavailable for the social skills groups, were participating in organized sports after school. Thus, it is possible that social skills development occurred within these organized, external social activities as a result of participation in team play. Indeed, "from a normative perspective, a large component of elementary school boys' social play occurs in organized groups." (Crombie, 1988). Females, on the other hand, tend to engage in dyadic, same-sex social play at this age and may have less structured opportunities to participate in organized team play. Therefore, the results obtained, suggesting that males developed greater intrapersonal skills following an 8-week hiatus than females, may have been an artifact of the activities in which they were engaged outside of the study. Thus, it is possible that young males may more easily develop social skills within the context of organized team activities, than within the context of a structured social skills intervention. Future studies might more specifically compare the effects of skills training with comparative external activities, such as organized sports.

Theoretical Perspective

The results of this study might be understood within the context of established theoretical frameworks, previously discussed. Specifically, Lewin et al. (1939) discusses how his Field Theory of modulating driving and restraining forces is an important attribute in attaining positive social outcomes. Lewin hypothesized that children who

attain a balance between these innate competing social forces are able to navigate their social world and manage their emotional drives using a realistic appraisal of their environment. One of the key components of social skills training paradigms involves the development of social decision making skills that emphasize teaching how to differentiate between one's emotional drives and the objective appraisal of reality (Elias & Clabby, 1989). Indeed, the social skills training paradigm employed in the present study also stressed the importance of managing impulses by recognizing one's emotional drives versus their environmental cues. Similarly, the ability to manage one's emotion and cognitive experiences are key components of emotional intelligence.

Results obtained in the present study can be understood within this conceptual framework. The results indicated that participants enrolled in the social skills treatment group experienced greater adaptability post-intervention than the control group. Adaptability is conceptually defined by BarOn & Parker (2000) as including components of reality testing, flexibility, and problem-solving. Participants in the present study may have developed a greater ability to assess their emotional experiences and modulate them with environmental cues. Reality testing can be defined as "the ability to assess the correspondence between what is emotionally experienced and what objectively exists" (BarOn & Parker, 2000). Further, learned flexibility can be defined as "the ability to adjust one's emotions, thoughts, and behavior to changing situations and conditions" (BarOn & Parker, 2000). Additionally, problem-solving is defined as "the ability to identify and define problems as well as to generate and implement potentially effective solutions" (BarOn & Parker, 2000). These factors together comprise the adaptability sub-scale of emotional intelligence and also serve as key factors in many programs that

employ directed, instructional skill-building techniques to improve social interactions. These ideas resonate with Lewin's Field Theory model, as described above, in that the development of reality testing, flexibility and problems-solving can lead to the ability to better balance opposing internal and external forces.

The results obtained in the present study might also be understood within Maslow's hierarchy of needs (Maslow, 1950). Maslow emphasized the acquisition of social needs throughout early adolescence in order for the development of belongingness and self-esteem to occur. Even though social skills training programs endeavor to build self-esteem by making the child feel accepted within the context of the training group, the development of self-esteem would not likely occur within the context of an 8-week social skills course. Thus, in the present study a number of the sub-scales of intra and inter-personal components were not found to be significant (e.g., self-regard, interpersonal relationships, assertiveness, self-actualization) possibly because it is not possible to acquire these developmental capabilities throughout the course of an 8-week training program. However, it is possible that the foundation for these esteem needs were established through the encouragement of group-building and peer acceptance exercises throughout the treatment. While Maslow discussed the importance of acceptance within one's immediate peer group, he also recognized that the need for self-esteem occurs when the child is able to translate and implement these skills into a broader environmental context. Perhaps, through repeated or longer-term skills training, children might have the opportunity to generalize skills obtained into school and play environments. This opportunity to generalize their new found skills outside the training group might eventually lead to improved self-esteem and confidence.

The results obtained might also be related to Erickson's theory of psychosocial development of the child. Children enrolled in the present study likely were in the industry versus inferiority stage of development. This stage, often termed latency, might help in understanding how male children assigned to the wait-list condition developed enhanced intrapersonal skills when compared to children in the social skills training group. Specifically, male children in the wait-list group often were assigned to this group as a result of scheduling conflicts due to outside, organized sporting activities. Thus, their enhanced intrapersonal development may have been an artifact of their participation in outside activities that stressed rule-based play and awareness of one's capabilities. Clearly, within the context of such social sport activities, these male children may have been afforded the opportunity to practice assertiveness and emotional self-awareness in an entirely different forum than social skills groups would allow. Thus, Erickson (1963) would suggest that during this important stage of latency in which external interests are pursued and the child negotiates social challenges external to their home, male children in the wait-list group were provided a medium for the practice of explicit and implicit social roles.

Clinical Implications

The results obtained in the present study allow for the generation of a number of clinical implications and conclusions. While there were a number of positive outcomes suggesting the usefulness of social skills groups in improving emotional intelligence in children, a number of outcome variables did not emerge significant. It is possible that there were a number of factors related to the treatment model that may have reduced the impact of skills training. Most notably, the length of the treatment program might have

been extended to further allow for the development of social skills. Thus, clinicians and group facilitators would be encouraged to extend the length of treatment groups in order to allow for the development, practice, and generalization of pro-social behaviors.

The present study found that following social skills training students experienced increased intrapersonal components of emotional intelligence as measured by the BarOn EQ-i:YV(S), however, no changes were observed in the interpersonal realm that one would traditionally associate with a group that aims to improve interpersonal skills. BarOn suggests that interpersonal factors of emotional intelligence include empathy, social responsibility, and interpersonal relationships (See Appendix B). Empathy is the ability to be aware of and appreciate the feelings of other people, social responsibility is the ability to become a cooperative, contributing, and constructing member of a social group, and interpersonal relationship is the ability to establish and maintain mutually satisfying relationships (BarOn & Parker, 2000). On the basis of these findings, therefore, those who develop social skills groups might consider including stronger interpersonal components within the training paradigm. For example, groups might include empathy training or include a process-oriented model to allow for the here-and-now experience and practice of feelings that are necessary for establishing healthy relationships. These recommendations for increasing interactive emotional components in social skills training groups, should be enacted in both preventative and treatment models.

The present study found that students experienced increased adaptability following social skills training, suggesting that the directive problem-solving approach was effective in managing change in everyday social problems. While components of

adaptability (i.e., reality testing, flexibility, and problem-solving) were all found to improve in the present study, it is possible that these factors might have further been enhanced by conducting the same treatment paradigm in a more naturalistic setting. Thus, incorporating a playground setting that children traditionally participate in, might increase the ecological validity of the treatment offered. Ecological validity refers to the extent to which treatment interventions hold similarity to the actual environment to which we wish to generalize (Brown & Odom, 1994). Switching the setting of these programs to more naturalistic environments might allow for the more direct generalization of skills to social environments to which children are accustomed. In addition, skills training conducted on playgrounds or in school settings may also reduce the embarrassment associated with having to attend social skills training groups.

Another significant result observed in the present study was that males in the wait-list control group experienced increased intrapersonal skills following social skills training. This unexpected finding, as described above, might have been an artifact of scheduling conflicts that caused them to be placed in the wait-list group. Scheduling conflicts were later found to have been related to male children also participating in organized sport activities (e.g., Little League baseball). This outcome, while unanticipated, might serve to further our understanding of how to conduct effective social skills training groups that successfully improve intrapersonal skills. Organized sport activities often involve the practice of pro-social behaviors such as cooperation, adaptability, turn-taking, confidence, assertiveness, and respect. Clearly, the acquisition of these pro-social skills and behaviors is enhanced by the innate nature of organized sports. On the basis of these observations, those who seek to develop and improve social skills training groups, may

consider implementing components of organized sports into skills training models. For example, increasing group size, employing ecologically valid and age-appropriate children's games, and sports activities might enhance the quality of training provided by social skills groups. Furthermore, facilitating social skills groups in naturalistic settings such as school fields and playgrounds, would allow groups to incorporate both children identified as socially deficient and socially adroit children for preventative models. Clearly, grouping children together with good social skills and poor social skills is advantageous as it prevents socially rejected children from further feeling targeted and isolated while also allowing them to model and observe respected peers.

Limitations

The results of the present study might have been limited by various methodological shortcomings. Specifically, there was an inherent selection bias, where children included in the study were from affluent communities that could afford to enroll their children in private and costly skills training groups conducted outside of the school system. Clearly, the mere fact that parents sought skills training for their children when not mandated by the school, might suggest that the extent of the peer rejection experienced by these children was so prominent that parents believed their children required external, directed treatment in order to function with peers. This might suggest that children included in the present study were more severely impaired socially than children who traditionally present for social skills training.

In addition to selection bias, the present study also was limited by other methodological factors. These include the small sample size, self-report nature of the questionnaire administered, and the inability to randomly assign children to treatment

conditions. Despite the fact that group facilitators were not directly involved in the gathering and administration of the measure, experimenter bias cannot be rule-out as having not influenced the nature of treatment provided by group facilitators. Clearly, group facilitators certainly would have benefited from the present study finding positive treatment outcome. Similarly, as a function of reactivity to the experimental situation, children might also have reacted differently as a result of being involved in the study.

Future Research

A number of the shortcoming identified above, lead directly to recommendations for future research that better identifies the relationship between social skills training and emotional intelligence. Specifically, future studies might incorporate children with developed social skills and children targeted as socially deficient in order to follow the prevention trend that was initiated by the highly publicized recent tragedies at Columbine High School and the Indian reservation shootings. Similarly, and in keeping with a prevention model, social skills training might be initiated at an earlier age within the school system in order to avoid future social difficulties. This may further enable school systems and counselors to identify and track tormentors who may be both socially adroit but who have low EQ, as well as peer rejected children to ensure safer learning environments for our children for generations to come. Clearly, this might allow both peer-rejected students as well as student tormenters (i.e., "bullies") who lack empathy and social responsibility to incorporate missing elements of social intelligence into their socio-emotional repertoire. Including children with both types of interpersonal deficiencies might ultimately thwart future large-scale tragedies.

Future endeavors might also address the aforementioned methodological issues. Specifically, future studies would be encouraged to include a larger sample-size, incorporate a wider-array of measures than were permitted in the present treatment facilities, and attempt to blind group facilitators and students to the study. In addition, self-report measures might be supplemented by more objective measures administered to parents, teachers, and perhaps peers who might provide supportive data regarding social skills outcomes.

In conclusion, while the present study provides preliminary evidence to support the role of emotional intelligence in social skills training groups, it should be noted that this is the first study known to employ the youth version of the BarOn Emotional Quotient Inventory. Replications of this study would be expected to continue to examine this measure in school settings while addressing methodological concerns address above. Continued research in this area will ultimately elucidate the relationship between emotional intelligence and social skills in an effort to bring healthier and safer environments to future generations of children.

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Appendix A

Session Format

Each session focuses on one particular component of social skills that are identified as markers for poor social adjustment in adolescents. A major goal is also to have fun and to give children the opportunity to enjoy each others' company. Training procedures are particularly helpful for structuring the sessions so that the treatment paradigm can be kept as uniform as possible.

The following sequence is implemented at the beginning of each session and is used as an introduction for teaching each skill:

1. The skill (inviting, sharing, complementing) is presented as important for having fun when playing with friends.
2. The children are asked to define and discuss the meaning and importance of the skill.
3. Children are asked to demonstrate and take turns practicing the skill using appropriate verbal and nonverbal behaviors.
4. Group members are asked to describe and act out what would happen if the skill is not used properly, and they are given a chance to evaluate the importance of the skill for making friends.
5. How and where the skill is useful are discussed. The children are instructed to use the skill during the play session that follows.

A 15 minute play session is structured either as a group activity or as a time for two or three group members to play together. Full group activities are used in the first few sessions to promote group building and cohesion.

A closing activity is held at the end of each session to give the students a chance to briefly state their impressions and feelings about the session, as well as to give them suggestions and encouragement to use the skill during the week.

The following sample curriculum includes specific skills to be taught and games and activities that promote learning.

Session 1

Skill: Inviting
Game: Blockhead, played by the large group

Blockhead provides the children with the opportunity for designing their own game with multishaped colored blocks. They may decide to build the highest possible structure or to use all the blocks without knocking down any pieces. Every child participates by adding a block when it is his or her turn. The game format decision should be made, with help from the facilitator, before the play session starts.

Session 2

Skill: Sharing and Cooperating
Game: Don't Break the Ice

This purpose of this game is to get your opponent to break apart the plastic blocks constituting the "ice" so that the game's figure falls. Since only two hammers are provided with the game, the children must share them while they take turns "breaking the ice."

Session 3

Skill: Participating
Game: Pickup Sticks, in pairs

A set of sticks is provided for each pair. The rules are decided before play begins, while the children are still in the discussion group format. It is the responsibility of each child to be honest while playing; however, the facilitator should help settle disputes as to whether a stick moved. When interceding, it is beneficial to have children brainstorm their own solutions.

Session 4

Skill: Conversing, giving information, and asking questions
Game: Draw a picture

The children are divided into pairs and are told to agree on a picture they will draw and present to the rest of the group at the end of the play session. They also need to decide who will be responsible for particular parts of the drawing. During the presentation to the rest of the group, other children are encouraged to ask questions about the picture and give positive feedback on others' drawings.

Session 5

Skill: Having fun, being a good or bad loser, sportsmanship
Game: Old Maid

The whole group plays according to card game rules. The children are encouraged to discuss feelings associated with winning and losing. The group generates ways of expressing those feelings and ways that others may react.

Session 6

Skill: Complimenting and giving positive feedback
Game: Color your life

The group assigns emotions to different colors of crayons or markers. For example, blue can mean sad and yellow may denote happiness. The children then draw a picture or design and use the colors as they illustrate their feelings in their lives and experiences. At the end of the play session the children talk to the group about their drawings and the reasons for their color choices. Group members are encouraged to share similar experiences and give positive feedback to each other.

Session 7

Skill: Joining
Game: Ringtoss

A group of three children are directed to begin playing the ringtoss. The fourth child is told to join the game after a short while. At the completion of each game, the roles are changed so that a different child has to practice joining an ongoing game. Joining by integrating oneself in the group is a very difficult task to perform successfully by children with poor social skills. Group members are encouraged to discuss their feelings as both part of the playing group as well as their feelings about their role as an outsider.

Session 8

Ending Ceremony

This session is a review of all previously presented skills. The facilitator may want o have the children recall these skills and how they have used them outside of the group. This discussion should focus on how to make friends and get along with others. It is also helpful to have children brainstorm situations in which specific skills are important. Refreshments make this last session particularly festive and facilitators are instructed to give plenty of positive feedback to students about the gains they have made improving their peer relationships in the group.

Appendix B

BarOn EQ-i:YV(S)

Topographical Map of Scales

The Components of Emotional Intelligence Measured by the BarOn EQ-iV(S)

Intrapersonal Components
Emotional Self-Awareness
Assertiveness
Self-Regard
Self-Actualization
Independence

Interpersonal Components
Empathy
Interpersonal Relationship
Social Responsibility

Adaptability Components
Problem Solving
Reality Testing
Flexibility

Stress Management Components
Stress Tolerance
Impulse Control